

MONETARY POLICY AND THE STATE OF THE ECONOMY

HEARING BEFORE THE COMMITTEE ON FINANCIAL SERVICES U.S. HOUSE OF REPRESENTATIVES ONE HUNDRED FOURTEENTH CONGRESS SECOND SESSION

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MONETARY POLICY AND THE STATE OF THE ECONOMY

Wednesday, February 10, 2016

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The committee met, pursuant to notice, at 10:02 a.m., in room 2128, Rayburn House Office Building, Hon. Jeb Hensarling [chairman of the committee] presiding.

Members present: Representatives Hensarling, Royce, Lucas, Garrett, Neugebauer, McHenry, Pearce, Posey, Fitzpatrick, Luetkemeyer, Duffy, Hurt, Stivers, Stutzman, Mulvaney, Hultgren, Ross, Pittenger, Wagner, Barr, Rothfus, Messer, Schweikert, Guinta, Tipton, Williams, Poliquin, Love, Hill, Emmer; Waters, Maloney, Velazquez, Sherman, Meeks, Hinojosa, Clay, Lynch, Scott, Green, Cleaver, Moore, Ellison, Perlmutter, Himes, Carney, Sewell, Foster, Murphy, Delaney, Sinema, Beatty, Heck, and Vargas.

Chairman HENSARLING. The Financial Services Committee will come to order. Without objection, the Chair is authorized to declare a recess of the committee at any time.

This hearing is for the purpose of receiving the semiannual testimony of the Chair of the Board of Governors of the Federal Reserve System on the conduct of monetary policy and the state of the economy. I now recognize myself for 3 minutes for an opening statement.

Last month, we all heard President Obama attempt to take an economic victory lap in his State of the Union speech, but the American people are having none of it. They are tired of hearing from the out-of-touch ruling class in Washington just how good things are when their realities are vastly different.

So, Chair Yellen, notwithstanding the fact that you are a Presidential appointee, I hope you do not follow suit this morning.

The reality is, since the President was elected and the Fed embarked upon its unprecedented quantitative easing in zero real interest rate policies, working families' paychecks have declined. Their net worth has declined.

The real unemployment rate continues to hover around 10 percent. Approximately one in six is on food stamps and almost 15 percent live in poverty. There hasn't been a single year when economic growth has reached 3 percent.

As one published report on this failure noted, "There is no parallel for this since the end of World War II, maybe not since the beginning of the Republic." Last year's less than 1 percent GDP growth just punctuates the matter for struggling working families.

I will not use this hearing to either praise or condemn the Fed's decision to raise by 25 basis points interest rates in December, nor do I think it appropriate to advise the FOMC on how to vote during its next meeting. But, given that Article I, Section 8 of the Constitution gives Congress the power to coin money and regulate the value thereof, I do feel compelled to demand that the Fed adopt a monetary policy course that is predictable, transparent, sustainable, and, barring terribly exigent circumstances, to stick with it.

This is part of the rationale underlying the House-passed Fed Oversight Reform and Modernization Act, known as the FORM Act. To use Austrian economist Friedrich Hayek's phrase: "It is fatal conceit to believe that the Fed is capable of micromanaging our economy to some state of economic nirvana." We now have at least 8 years of recent history to prove otherwise.

Most importantly, no amount of monetary policy can substitute for sound fiscal policy. Unless and until the crushing regulatory onslaught of Obamacare, the Dodd-Frank Act, and the EPA is replaced with greater opportunity, competition, and innovation, the Fed cannot substantially help our economy; it can only hurt it.

It can hurt it by continuing to serve as the financier and facilitator of our unsustainable Federal debt. Just last month, the Congressional Budget Office yet again warned of our unsustainable debt in its latest baseline release, which references the debt 199 times.

The Fed can hurt our economy by continuing to force investors to chase yield, thus inflating dangerous asset bubbles, the deflating of which we are likely seeing in our turbulent equity markets today.

The Fed can continue to hurt our economy by failing to unwind its unprecedented balance sheet. By growing at almost 500 percent, the Fed itself has become one of our largest sources of systemic risk.

Finally, separate and apart from monetary policy, alarmingly, the Fed, under Dodd-Frank, can now functionally control virtually every major corner of the financial services sector of our economy. It does so with almost no accountability or transparency. Not only does this harm economic growth, it is an affront to due process, checks and balances, and the rule of law.

The American people should again be duly alarmed that they may wake up one day to discover that our central bankers have become our central planners.

The Chair recognizes the ranking member of the committee, Ms. Waters, for 3 minutes for an opening statement.

Ms. WATERS. Thank you, Mr. Chairman, for this meeting here today.

But I would really like to thank Chair Yellen for being here with us today to discuss the state of the economy and your role in ensuring that a full recovery is achieved for all. As a result of your Herculean efforts, the efforts of Democrats in Congress, and the Obama Administration, we have truly made tremendous progress since the darkest days of the financial crisis.

Over the past 71 consecutive months, our economy has added more than 14 million private sector jobs, and the unemployment

rate has fallen by more than half. But despite this commendable progress, significant work remains.

Wages have yet to see real gains: 7.8 million workers remain jobless; 6 million workers are involuntarily working part-time jobs; and another 2 million Americans indicate they would join the workforce if only the economy was strong enough to support them.

With inflation consistently running below target, I wonder whether the expected path for further raising rates over the course of 2016 may overemphasize concerns about inflation and underestimate the weakness in our labor market.

I look forward to your comments on this issue.

Absent a full recovery, I fear that further raising rates may be a step that takes us further away from what is needed to ensure that the needs of vulnerable populations are met. At today's hearing, I also hope we can explore the ramifications of an exit strategy that relies heavily on paying private sector banks not to lend the funds they hold in reserve and to discuss reasonable alternatives that may exist that do not involve a massive transfer of wealth from the Federal Reserve to private sector banks.

I just wonder if it is possible for these funds to be used for workers who are really worried about whether or not they are going to have a pension, or if there can be some social responsibility investment with these funds to help workers in vulnerable populations?

Finally, many of us have been very patient about the implementation of the living wills. As you know, this is a requirement in the Dodd-Frank Act, and it is designed to end too-big-to-fail.

And I know that you have to give careful consideration to all of this, but after not one, not two, but five submissions, the Federal Reserve has yet to impose consequences for living wills that are not credible. What can we do about this? It is time we understand that we have given a lot of opportunities to the banks to get it right and they haven't done that.

Chair Yellen, I look forward to hearing your views on the economy and I welcome the opportunity to discuss how we can more effectively elevate the needs of the most vulnerable populations and promote a safe and sound financial system. And I want you to know that our audience today is made up of workers who really want to hear you talk about this, so I would welcome opportunities to address some of their concerns.

I yield back the balance of my time.

Chairman HENSARLING. The Chair now recognizes the gentleman from South Carolina, Mr. Mulvaney, the vice chairman of our Monetary Policy and Trade Subcommittee, for 2 minutes.

Mr. MULVANEY. Chair Yellen, when I sat down last night to get ready for this hearing, it occurred to me that I could ask you about a bunch of things today.

I could ask you about your plans on interest rates and how you arrived at the decisions that you are going to make, what you used to arrive at those decisions. I could ask about your role at the Fed in regulating financial institutions. Dodd-Frank, for example, has now given you regulatory powers over banks, nonbanks, clearinghouses, and thrift holding companies.

It also struck me I could even ask you about the role of the Fed, and more specifically the New York branch, in the possibly mis-

leading statements that I believe Secretary Lew made to two congressional committees regarding the Fed and the Treasury's role in intentionally withholding information from Congress about plans to prioritize debt payments during the last government shutdown.

And then, I realized that is too much. That is too much not just to ask you in the few minutes that we are going to have today; it is just too much for you to be doing. The Fed has, like so many other parts of our government, grown way beyond its original intended scope.

When Congress chartered the Bank in 1913, we asked it to do one thing: keep the financial system, and primarily currency, stable. Today, the Fed is involved in everything from how much purchasing power these people have, to where they can bank, how they can invest and save, and, to believe some, whether or not they even have a job.

Maybe you shouldn't be involved in trying to get us to full employment, something that your own economics orthodoxy teaches us you don't have the ability to do, but only fiscal policy can do. Maybe you shouldn't be involved with regulating mortgages and credit cards. And you certainly shouldn't be involved in political decisions to intentionally keep Congress in the dark about how this country is going to pay back its principal and its interest on the debt.

So I hope today we get a chance to talk about a lot of things—sound money, the dual mandate, full employment, regulations, the debt ceiling, community banks, the impact of zero rates on retirees, asset bubbles—in the hopes that at the end we discover that perhaps the time has come to get back to basics, and one and one thing only, which is long-term price stability.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentlelady from Wisconsin, Ms. Moore, the ranking member of our Monetary Policy and Trade Subcommittee, for 2 minutes.

Ms. MOORE. Thank you so much, Mr. Chairman, and welcome back, Chair Yellen.

As you can tell from the opening statements, there is plenty to discuss since your last appearance before this committee. I supported your rate increase in December. I still do. And I think you are providing a lot of credibility to markets with your leadership.

However, these seem to be economic times that are destined to be interesting. Since December we have witnessed a lot of global economic turmoil, and now it is turning up in the United States, as reflected in our stock market.

Foreign central banks are moving to ease rates even as we are moving to try to tighten them. And I am not saying that we need to harmonize our monetary policy, but I am very interested in hearing how you and the Fed are working with foreign central banks to get in front of these ominous trends.

As you have stated so many times before, monetary policy is a limited tool. But if we are going to grow our economy and keep on track, and as I look at the folk in green in the audience, it causes me to realize that Members of Congress have to do their part, too, and not just throw it in all in the lap of the Fed. We have to embrace proven growth strategies like tackling poverty, especially

among women, by providing vocational training so that they can qualify and compete for sustainable jobs with living wages.

And with that, I yield back the balance of my time.

Chairman HENSARLING. The gentlelady yields back.

Today, we welcome the testimony of the Honorable Janet Yellen, Chair of the Federal Reserve. Chair Yellen has previously testified before this committee so I believe she needs no further introduction.

Without objection, Chair Yellen, your written statement will be made a part of the record. You are now recognized for 5 minutes to give an oral presentation of your testimony.

Thank you.

**STATEMENT OF THE HONORABLE JANET L. YELLEN, CHAIR,
BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM**

Mrs. YELLEN. Thank you. Chairman Hensarling, Ranking Member Waters, and members of the committee, I am pleased to present the Federal Reserve's Semiannual Monetary Policy Report to the Congress.

In my remarks today, I will discuss the current economic situation and outlook before turning to monetary policy.

Since my appearance before this committee last July, the economy has made further progress toward the Federal Reserve's objective of maximum employment. And while inflation is expected to remain low in the near term, in part because of further declines in energy prices, the Federal Open Market Committee (FOMC) expects that inflation will rise to its 2 percent objective over the medium term.

In the labor market, the number of payroll jobs rose 2.7 million in 2015, and posted a further gain of 150,000 in January of this year. The cumulative increase in employment since its trough in early 2010 is now more than 13 million jobs.

Meanwhile, the unemployment rate fell to 4.9 percent in January, 0.8 of a percentage point below its level a year ago and in line with the median of FOMC participants' most recent estimates of its longer-run normal level.

Other measures of labor market conditions have also shown solid improvement, with noticeable declines over the past year in the number of individuals who want to work, and are available to work, but have not actively searched recently, and in the number of people who are working part-time but would rather work full-time.

However, these measures remain above the levels seen prior to the recession, suggesting that some slack in labor markets remains. Thus, while labor market conditions have improved substantially, there is still room for further sustainable improvement.

The strong gains in the job market last year were accompanied by a continued moderate expansion in economic activity. U.S. real gross domestic product is estimated to have increased about 1.75 percent in 2015.

Over the course of the year, subdued foreign growth and the appreciation of the dollar restrains net exports. In the fourth quarter of last year, growth in the gross domestic product is reported to have slowed more sharply, to an annual rate of just 0.75 percent.

Again, growth was held back by weak net exports as well as by a negative contribution from inventory investment.

Although private domestic final demand appears to have slowed somewhat in the fourth quarter, it has continued to advance. Household spending has been supported by steady job gains and solid growth in real disposable income, aided in part by the declines in oil prices.

One area of particular strength has been purchases of cars and light trucks. Sales of these vehicles in 2015 reached their highest level ever.

In the drilling and mining sector, lower oil prices have caused companies to slash jobs and sharply cut capital outlays.

But in most other sectors, business investment rose over the second half of last year, and home-building activity has continued to move up on balance, although the level of new construction remains well below the longer-run levels implied by demographic trends.

Financial conditions in the United States have recently become less supportive of growth, with declines in broad measures of equity prices, higher borrowing rates for riskier borrowers, and a further appreciation of the dollar. These developments, if they prove persistent, could weigh on the outlook for economic activity in the labor market, although declines in longer-term interest rates and oil prices provide some offset.

Still, ongoing employment gains and faster wage growth should support the growth of real incomes and, therefore, consumer spending. And global economic growth should pick up over time, supported by highly accommodative monetary policies abroad.

Against this backdrop, the Committee expects that with gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace in the coming years, and that labor market indicators will continue to strengthen.

As is always the case, the economic outlook is uncertain. Foreign economic developments in particular pose risks to U.S. economic growth. Most notably, although recent economic indicators do not suggest a sharp slowdown in Chinese growth, declines in the foreign exchange value of the renminbi have intensified uncertainty about China's exchange rate policy and the prospects for its economy.

This uncertainty led to increased volatility in global financial markets and, against the backdrop of persistent weakness abroad, exacerbated concerns about the outlook for global growth. These growth concerns, along with strong supply conditions and high inventories, contributed to the recent fall in the prices of oil and other commodities.

In turn, low commodity prices could trigger financial stresses in commodity-exporting economies, particularly in vulnerable emerging market economies and for commodity-producing firms in many countries.

Should any of these downside risks materialize, foreign activity and demand for U.S. exports could weaken, and financial market conditions could tighten further. Of course, economic growth could also exceed our projections for a number of reasons, including the

possibility that low oil prices will boost U.S. economic growth more than we expect.

At present, the Committee is closely monitoring global economic and financial developments as well as assessing their implications for the labor market and inflation and the balance of risk to the outlook.

As I noted earlier, inflation continues to run below the Committee's 2-percent objective. Overall, consumer prices, as measured by the price index for personal consumption expenditures, increased just 0.5 percent over the 12 months of 2015.

To a large extent, the low average pace of inflation last year can be traced to the earlier steep declines in oil prices and the prices of other imported goods. And, given the recent further decline from the prices of oil and other commodities as well as the further appreciation of the dollar, the Committee expects inflation to remain low in the near term.

However, once oil and import prices stop falling, the downward pressure on domestic inflation from those sources should wane. And as the labor market strengthens further, inflation is expected to rise gradually to 2 percent over the median term.

In light of the current shortfall of inflation from 2 percent, the Committee is carefully monitoring actual and expected progress toward its inflation goal. Of course, inflation expectations play an important role in the inflation process, and the Committee's confidence in the inflation outlook depends importantly on the degree to which longer-run inflation expectations remain anchored.

It is worth noting in this regard that market-based measures of inflation compensation have moved down to historically low levels. Our analysis suggests that changes in risk and liquidity premiums over the past year-and-a-half contributed significantly to these declines. Some survey measures of longer-run inflation expectations are also at the low end of their recent ranges. Overall, however, they have been reasonably stable.

Turning to monetary policy, the FOMC conducts policy to promote maximum employment and price stability, as required by our statutory mandate from the Congress. Last March, the Committee stated that it would be appropriate to raise the target range for the Federal funds rate when it had seen further improvement in the labor market and was reasonably confident that inflation would move back to its 2 percent objective over the medium term.

In December, the Committee judged that these two criteria had been satisfied and decided to raise the target range for the Federal funds rate 0.25 percentage point to between 0.25 and 0.5 percent. This increase marked the end of the 7-year period during which the Federal funds rate was held near zero. The Committee did not adjust the target range in January.

The decision in December to raise the Federal funds rate reflected the Committee's assessment that even after a modest reduction in policy accommodation, economic activity would continue to expand at a moderate pace and labor market indicators would continue to strengthen. Although inflation was running below the Committee's longer-run objective, the FOMC judged that much of the softness in inflation was attributable to transitory factors that

are likely to abate over time, and the diminishing slack in labor and product markets would help move inflation toward 2 percent.

In addition, the Committee recognized that it takes time for monetary policy actions to affect economic conditions. If the FOMC delayed the start of policy normalization for too long it might have to tighten policy relatively abruptly in the future to keep the economy from overheating and inflation from significantly overshooting its objective. Such an abrupt tightening could increase the risk of pushing the economy into recession.

It is important to note that even after this increase, the stance of monetary policy remains accommodative. The FOMC anticipates that economic conditions will evolve in a manner that will warrant only gradual increases in the Federal funds rate. In addition, the Committee expects that the Federal funds rate is likely to remain for some time below the levels that are expected to prevail in the longer run.

This expectation is consistent with the view that the neutral, nominal Federal funds rate, defined as the value of the Federal funds rate that would be neither expansionary nor contractionary if the economy was operating near potential, is currently low by historical standards and is likely to rise only gradually over time.

The low level of the neutral Federal funds rate may be partly attributable to a range of persistent economic headwinds, such as limited access to credit for some borrowers, weak growth abroad, and the significant appreciation of the dollar that have weighed on aggregate demand.

Of course, monetary policy is by no means on a preset course. The actual path of the Federal funds rate will depend on what incoming data tell us about the economic outlook, and we will regularly reassess what level of the Federal funds rate is consistent with achieving and maintaining maximum employment and 2 percent inflation.

In doing so, we will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. In particular, stronger growth or a more rapid increase in inflation than the Committee currently anticipates would suggest that the neutral Federal funds rate was rising more quickly than expected, making it appropriate to raise the Federal funds rate more quickly as well.

Conversely, if the economy were to disappoint, a lower path of the Federal funds rate would be appropriate. We are committed to our dual objectives and we will adjust policy as appropriate to foster financial conditions consistent with their attainment over time.

Consistent with its previous communications, the Federal Reserve used interest on excess reserves and overnight reversed repurchase (RRP) operations to move the Federal funds rate into the new target range. The adjustment to the interest rate on excess reserves (IOER) rate has been particularly important in raising the Federal funds rate and short-term interest rates more generally in an environment of abundant bank reserves.

Meanwhile, overnight RRP operations complement the IOER rate by establishing a soft floor on money market interest rates. The IOER rate and the overnight RRP operations allowed the FOMC to

control the Federal funds rate effectively without having to first shrink its balance sheet by selling a large part of its holdings of longer-term securities.

The Committee judged that removing monetary policy accommodation by the traditional approach of raising short-term interest rates is preferable to selling longer-term assets because such sales could be difficult to calibrate and could generate unexpected financial market reactions. The Committee is continuing its policy of reinvesting proceeds from maturing Treasury securities and principal payments from agency debt and mortgage-backed securities. As highlighted in the December statement, the FOMC anticipates continuing this policy until normalization of the level of the Federal funds rate is well under way.

Maintaining our sizable holdings of longer-term securities should help maintain accommodative financial conditions and reduce the risk that we might need to return the Federal funds rate target to the effective lower bound in response to future adverse shocks.

Thank you. I will be pleased to take your questions.

[The prepared statement of Chair Yellen can be found on page 56 of the appendix.]

Chairman HENSARLING. The Chair now recognizes himself for 5 minutes for questions.

Chair Yellen, I know you are familiar with the Fed Oversight Reform and Modernization Act, known as the FORM Act, which was passed by the House in November. It is designed to bring about greater transparency and accountability at the Fed, to respect the Fed's independence but also ensure that the Fed lets the rest of us know the variables that are used in monetary policy and their reaction functions so that working families can plan out their family economies.

I know that you are not a fan of the FORM Act, because I have a letter dated November 16th that you sent to the Speaker. In that letter, you called the Act "a grave mistake." I have another letter that describes it as an important reform.

Your letter mentions, or complains that monetary policy would be forced to be strictly adhered to by the prescriptions of a simple rule. My letter says the legislation does not chain the Fed to any rule, and certainly not a mechanical rule.

Your letter says that the Act would undermine the independence of the Fed. My letter says in no way would the legislation compromise the Fed's independence. On the contrary, publicly reporting a strategy helps prevent policymakers from bending under pressure and sacrificing independence.

Your letter states that the FORM Act would "severely damage the U.S. economy were it to become law." My letter says the new legislation would improve economic performance.

By definition, your letter is signed by you. My letter is signed by Dr. Lars Hansen of the University of Chicago, Nobel laureate in economics.

It is also signed by Robert Lucas, University of Chicago, Nobel laureate in economics; Edward Prescott, Arizona State University, Nobel laureate in economics; George Shultz, former Secretary of the Treasury; Robert Heller, former Federal Reserve Governor; Jerry Jordan, former President of the Cleveland Federal Reserve

Bank; William Poole, former President of the St. Louis Federal Reserve Bank, and former member of the Council of Economic Advisers; Michael Boskin, Stanford University, former Chairman of the President's Council of Economic Advisers; Charles Calomiris, Columbia University, former consultant, Federal Reserve Board of Governors; Marvin Goodfriend, Carnegie Mellon, former Research Director for the Federal Reserve Board of Richmond; Allan Meltzer, Carnegie Mellon; and John Taylor of Stanford University, former Under Secretary of the Treasury, member of the Council of Economic Advisers, and author of the Taylor Rule. And there are about 15 other signatories to the letter.

So, Chair Yellen, we have three Nobel prizewinners in economics, a host of former Federal Reserve officials, and some of the most renowned and respected economists in the country who pretty much disagree with everything that you asserted in your three-page missive against the FORM Act. I know you are not a fan, but I would just caution you, Chair Yellen, that when you use such apocalyptic and hyperbolic language, you might consider whether or not this undercuts your credibility as Fed Chair.

I have one question. In your testimony, Chair Yellen, in characterizing the Fed strategy to increase policy rates, you testified that, "removing monetary policy accommodation by the traditional approach is preferable to shrinking the Fed's balance sheet," which now holds almost as much in Treasuries as China and Japan do combined.

I am trying to figure out what precisely is "traditional" about this current approach where the Fed—and the ranking member, I think, brought this up in her opening statement—subsidizes deposit rates for some of the biggest banks in our country, which can distort, as you well know, real asset allocation and constrain economic opportunity. And the last time I checked, as we speak, the Fed's fund rate is just above 30 basis points. You are paying banks 50 basis points for excess reserves, which would seem to be above the market rate.

You have previously testified that this does not involve a subsidy to the banks. It appears to be a subsidy, and it appears to distort real asset allocation. So what is traditional about this approach?

Mrs. YELLEN. The tools that we have used to raise our target for short-term interest rates, namely our key tool being interest on excess reserves, is widely used by central banks as a key tool of monetary policy. And it is the critical tool that we need to rely on in order to adjust the level of short-term rates to what we regard as the appropriate stance to achieve congressionally-mandated goals.

I would point out that although we are paying interest to banks on reserves, those reserves are financing our holdings, a large portfolio of holdings of longer-term Treasury securities and mortgage-backed securities on which we earn substantially greater interest. And because of that large balance sheet, this past year the Fed transferred back to the Treasury and to the American taxpayers \$100 billion.

Chairman HENSARLING. But it is true, Chair Yellen, is it not, that you are paying 50 basis points when the Fed funds rate is 30 basis points?

Mrs. YELLEN. It is necessary for us to raise benchmark rates in order for a whole host of short-term interest rates—

Chairman HENSARLING. That would seem to imply a subsidy to the largest banks. My time has long since expired.

The Chair now recognizes the ranking member for 5 minutes.

Ms. WATERS. Thank you, Mr. Chairman.

Chair Yellen, continuing on the discussion that was just initiated by the Chairman, as you continue to embark on the path of raising rates I want to explore the alternative approaches that may exist for the Federal Reserve to do so in a manner that does not rely so heavily on paying massive sums to private sector banks to hold onto the reserves they maintain at the Fed.

While the Fed paid close to \$7 billion on reserves in 2015, as the economy strengthens and rates are further increased, the amounts paid could increase dramatically into the tens of billions of dollars. Can you expand on why you believe that paying interest on excess reserves is particularly important for raising rates in the current environment and discuss possible alternative approaches that may exist?

And if you talk about what you believe is the mandate of Congress and how you don't have the authority for alternatives, I want to hear more about that and what you do have the authority to do.

Mrs. YELLEN. Prior to the financial crisis, the Fed adjusted the level of short-term interest rates through small variations in the supply of reserves to the banking system. Following the financial crisis, as our balance sheet expanded, reserves became abundant, and the traditional old-fashioned approach was no longer feasible.

Congress had debated the wisdom of giving us the tool of paying interest on reserves for many years and decided to do so in 2006, and then speeded up implementation in 2008. The knowledge that we had that tool and would be able to use it when we deemed it appropriate to begin to raise the short-term level of interest rates, as we did in December—the knowledge that that tool was available, as I just mentioned, the tool that is critical to our control of short-term rates and widely used globally, that was an important fact when we considered all the actions that we took—the unconventional actions that we took—to produce the decline in the unemployment rate and improvement in the labor market that we have achieved.

So if we were denied that tool at the present time, we would not be able to easily raise the level of short-term rates. Until we—

Ms. WATERS. However, if I may interrupt you for a moment, are you saying that you are limited only to that action? Or do you have the authority to make some other decisions relative to what the interest is that you are paying to big banks? Do you have some flexibility here?

Mrs. YELLEN. We would likely, to regain effective control of short-term interest rates, need to shrink our portfolio from its current large level back to the kinds of levels we had before the crisis. And we have set out over several years a plan for how we would normalize policy that relies not on selling long-term assets but on adjusting short-term interest rates.

I believe that if we were to follow the plan of selling off long-term assets, it could prove very disruptive to the expansion. It is a strat-

egy that I think could harm the economic recovery, and it certainly is not what we have set out to the public. We said we would shrink our balance sheet in a gradual and predictable way so as to not be disruptive.

Ms. WATERS. So if I may interrupt you again, you are saying it was Congress, starting in 2006, who would have to design this approach, and Congress could, if it decided to, take it away as an approach that you would use even though you do not think it would be helpful?

Mrs. YELLEN. I think it would be very disruptive to the economy and I really—I want to point out several things about this. First of all, although the banks are earning this interest on the excess—on the reserves that they hold, as the level of short-term rates rises, first of all, on their wholesale funding that many of the banks rely on, they are also paying more to gain that funding. Eventually this will be the mechanism that would lead, as well, to higher deposit rates to reward savers.

And finally, I really want to emphasize that from the taxpayers' point of view, the Federal Reserve has transferred, since 2008 through 2015, roughly \$600 billion back to Congress, to the taxpayers, to the Treasury, funds that have contributed importantly to financing the government, and that has only been possible because we have a larger stock of reserves in the banking system and, correspondingly, hold a far larger stock of interest-bearing assets that pay in larger amounts.

Prior to the crisis, a typical level of transfers from the Fed to the Treasury was in the order of \$20 billion. For the past 2 years, we have transferred \$100 billion a year.

Ms. WATERS. Thank you very much. We need to talk about this some more.

I yield back the balance of my time.

Chairman HENSARLING. The Chair now recognizes the gentleman from South Carolina, Mr. Mulvaney, the vice chairman of our Monetary Policy and Trade Subcommittee.

Mr. MULVANEY. I thank the Chairman.

A quick follow up, Chair Yellen, on the Chairman's question: You mentioned that using the IOER or the RRP were traditional tools, and then you mentioned that other central banks used them before. Have you ever used them?

Mrs. YELLEN. No.

Mr. MULVANEY. Has the Federal funds rate, which I understand now is trading on the market at about 30 basis points, ever been—ever—below the IOER, which is now set at 50 basis points?

Mrs. YELLEN. Has it ever been below?

Mr. MULVANEY. Yes, ma'am.

It is since we set the—when we were first given the power to pay interest on reserves, we set it at 25 basis points, and the Fed funds rate traded below it. And when we raised it to 50, the Fed funds rate moved up by 25 basis points, the amount of the increase in IOER that continues to trade below it.

Mr. MULVANEY. All right. So your testimony is that those are traditional tools. So let's move then to a different discussion with that as a background.

You have in the past been a proponent, though a reserved proponent, of a rules-based system. Back in 2012, you gave a speech where you said, “Why shouldn’t the FOMC adopt such a rule as a guidepost?”

The answer is that times are by no means normal now and that simple rules that perform well under ordinary circumstances just won’t perform well.

Two years ago, you said something similar to this committee. In response to a question about rules you said, “The conditions facing the economy are extremely unusual. I have tried to argue and believe strongly that while a Taylor Rule, or something like it, provides a sensible approach in normal times, like the Great Moderation, under current situations it is not appropriate.”

So, that was your testimony in 2014. You gave a speech in 2012.

Here we are in 2016. You, by your own testimony, are using traditional tools of monetary policy. Your written testimony begins by saying that the economy has made further progress towards the Federal Reserve’s objective of maximum employment. You go on to say that inflation is low in the near-term but it will rise to its 2 percent objective over the median term.

Are we in normal times?

Mrs. YELLEN. The economy is in many ways close to normal in the sense that the unemployment rate has declined to levels that most of my colleagues believe are consistent with full employment in the longer run. And inflation, while it is below 2 percent, I do think there is a good reason to think it will move up over time. And in that sense things are normal.

But what is not normal is that the so-called neutral level of the Federal funds rate that I referred to in my testimony and we discuss in the report is by no means normal. In other words, we have needed for 7 years to hold the Federal funds rate and—both in nominal and inflation in real terms—inflation adjusted or real terms—at exceptionally low levels to achieve growth averaging 2 percent or a little bit above.

Mr. MULVANEY. I am sorry to interrupt, but I do want to get—

Mrs. YELLEN. And in that sense, it is not normal. The economy is being held back by headwinds.

I would point out that a tenet of the Taylor Rule is that it takes—it assumes and embodies in it an assumption that the equilibrium level of the Fed funds rate with the 2 percent objective is 4 percent, or that the real equilibrium Fed funds rate is 2 percent. And that simply isn’t the case.

Mr. MULVANEY. Madam Chair, I am not actually, surprisingly, not pushing the Taylor Rule. I am simply asking about a general rule-based system because you have shown some support for it in the past. And I guess my question is this: What does the world have to look like? Because I think admittedly, employment is better. Inflation, it seems to be under control. Yes, you say that the Fed funds rate is extraordinarily low, which it is, but that is something under your control.

What does the world have to look like in order for the Federal Reserve to start considering transitioning to a rule-based system?

Mrs. YELLEN. I think the benefit of a rule-based system is it is systematic and understandable. And the Federal Reserve has at-

tempted to engage in the systematic policy. It takes a different form.

Mr. MULVANEY. I get that, but what does the world have to look like? When you come back next year, what should the world look like for you to be saying, you know what, we are considering a rules-based system? What has to change?

Mrs. YELLEN. The Committee looks at guidelines from rules as useful benchmarks as it considers the appropriate stance of policy, but I believe, and I think most of my colleagues would agree, that we shouldn't mechanically follow that rule or any other rule, but that we need to take into account a large set of indicators of how the economy is performing.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from Wisconsin, Ms. Moore, ranking member of our Monetary Policy and Trade Subcommittee.

Ms. MOORE. Thank you so much, Mr. Chairman.

And again, welcome, Chair Yellen.

I want to take us in a little different direction. Many of us here on both sides of the aisle are really concerned about what is happening with our smaller banks. And we understand that because of Basel III and we had a lot of concerns when we debated Dodd-Frank, including provisions like Volcker and FSOC.

They were driven by the concerns of the large banks in active capital markets. And I know that the Fed is not the only regulator overseeing implementation of Dodd-Frank, but I would like your thoughts on how the rules may have been tailored, or should have been tailored, for small and community banks?

The stress tests and the capital standards are killing our small banks, compliance officers that—where they don't have the additional staff. Just your thoughts on what should have been done or how has it been tailored?

Mrs. YELLEN. Let me say that I think community banks and their vitality is exceptionally important. They provide enormous benefits to the country and to the economy. I recognize that the regulatory burden on community banks is intense.

Ms. MOORE. They are shutting down.

Mrs. YELLEN. For our part, we are focused on doing everything that we conceivably can to minimize and reduce the burden on these banking organizations.

We have been conducting an EGRPRA review to identify potential burdens that our regulations impose on these banks, and we will do everything that we can to respond to the concerns that are identified there to reduce burden.

We are looking for many ways. First of all, we have tried to tailor our regulations to the size and complexity of institutions. The smaller community banks are not subject to stress-testing requirements. Many aspects of Basel III capital requirements and liquidity rules do not apply to those banking organizations. We have tried to simplify those requirements.

We are, in addition to that, trying to reduce the duration of the time that we spend reviewing banks during exams; we are trying to simplify and be more targeted in our requests for documentation.

We try to identify for community bankers what is relevant to them and what they can safely ignore. And we are looking for ways to conduct exams that are more focused on the actual risks that are relevant to a particular organization.

So I recognize that the burdens on those banks have been very intense and I pledge that we are doing and will continue to do all we can to reduce burdens on them.

Ms. MOORE. Thank you, Madam Chair.

On this committee, we spend a lot of time talking about moral hazard, and so I guess I would like your view on whether or not you think there is any moral hazard on not a single person involved in the 2008 crash having gone to jail. They get fines, they get sort of compliance letters where they can clean up their act and avoid prosecution, and I am wondering if you think that it is important for us to seek—so what? You pay a fine. That doesn't stop anyone from doing the next crime, unlike other of our criminal laws.

Mrs. YELLEN. I agree with you. I do not think that individuals who are guilty of wrongdoing should escape paying appropriate penalties.

For our own part, we are not allowed, obviously, to put in place criminal penalties. That is a matter for the Department of Justice. For our part, we can, when we find individuals to be responsible for wrongdoing, make sure that they are not allowed to work at the banking organizations where they committed misdeeds. And in many cases, we can make sure that they are banned from the business of banking.

And when we have been able to identify individuals who are responsible, we have put in place those sanctions and will continue to do so. And we always cooperate with the Department of Justice in their investigations.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from North Carolina, Mr. McHenry, vice chairman of the committee.

Mr. MCHENRY. Thank you, Chair Yellen.

So, does the Federal Reserve have the legal authority to implement negative rates?

Mrs. YELLEN. I'm sorry, do we have the legal authority to—

Mr. MCHENRY. Implement negative rates.

Mrs. YELLEN. This is a matter that the Federal Open Market Committee considered around 2010, and we didn't fully—as we were exploring our options to provide accommodation we decided not to lower interest rates, either IOER to zero or into negative territory, and we didn't fully look at the legal issues around that.

I would say that remains a question that we still would need to investigate more thoroughly.

Mr. MCHENRY. And one of our document requests, that 2010 memo that I assume is connected to that policy discussion—

Mrs. YELLEN. That is right.

Mr. MCHENRY. —raised significant doubts about the Fed's authority that they currently have to charge—to pay interest on excessive—on excess reserves and whether or not that same authority would allow you to demand payment for that.

Mrs. YELLEN. Congressman, I don't know of any restriction that would prevent us from doing that. That memo indicated—was intended to indicate that the legal issues had not been seriously considered in the time that went to the FOMC.

Mr. MCHENRY. Have they been seriously considered since 2010?

Mrs. YELLEN. In the spirit of prudent planning, we always try to look at what options we would have available to us, either if we need to tighten policy more rapidly than we expect or the opposite, to loosen policy.

Mr. MCHENRY. Do you—

Mrs. YELLEN. So, we would take a look at it. But the legal issues I am not prepared to tell you have been thoroughly examined at this point.

Mr. MCHENRY. So at this point it is unclear whether or not the Fed does have the legal authority to implement negative rates?

Mrs. YELLEN. I am not aware of anything that would prevent us from doing it, but I am saying that we have not fully investigated the legal issues. That still needs to be done.

Mr. MCHENRY. So let's move to regulation. You run the largest regulatory organization in the United States of America, perhaps on the globe—likely on the globe.

And as such, I believe in the independence of the Fed to make monetary policy, but as a regulator, Congress should have significant oversight of your regulatory action, should they not?

Mrs. YELLEN. Yes.

Mr. MCHENRY. Okay. And as such, as a matter of regulation—the Chairman raised this question with you the last time you were here about Federal Reserve regulators, bank examiners demanding to be a part of board of director meetings at member banks.

And you have exchanged multiple letters on this matter. We still hear that this is, in fact, taking place.

Would you pledge to this committee that you would direct your bank examiners and regional bank examiners to stop this practice?

Mrs. YELLEN. I will look into—

Mr. MCHENRY. You have already looked into it, and you have exchanged letters and you gave the Chairman the assurance last time that you are not aware of it. I assume you are now aware of whether or not this is taking place, are you not?

Mrs. YELLEN. I think there are occasional situations in which that occurs.

Mr. MCHENRY. Do you believe that is appropriate?

Mrs. YELLEN. I am not certain that it is inappropriate. I want to get back to you on that.

Mr. MCHENRY. This was raised about 6 months ago by the Chairman; you have exchanged multiple letters. I would like to have some greater assurance. This is not meant to be a “gotcha;” this is a well-worn question.

And we are hearing—and in fact, there is a press report that the Fed directed one of your member banks to incorporate two additional members of the board of directors. And the Fed directing a private enterprise to change their board of directors seems somewhat perplexing.

Do you believe that is appropriate authority for the Fed?

Mrs. YELLEN. I think it is appropriate as a matter of supervision to—

Mr. MCHENRY. To direct?

Mrs. YELLEN. —ensure that a board of directors of a financial company that we supervise is appropriately constituted in fulfilling its corporate governance functions. That is a part of supervision.

Mr. MCHENRY. My time has expired.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from New York, Mrs. Maloney, ranking member of our Capital Markets Subcommittee.

Mrs. MALONEY. Chair Yellen, you raised interest rates in December and said that any future interest rate increases, if they happened, would be gradual. I would like to ask you about the recent turmoil in global markets.

As you know, equity markets around the world, led by China, have plunged since the beginning of the year as global economic growth has weakened. And the United States has not been immune. U.S. stock markets have fallen over 9 percent since the beginning of the year and Treasury yields have plunged 23 percent.

So my question is, has the turmoil in global markets changed your view about the appropriate pace of interest rate increases and hikes, or will you wait to see how global market turmoil affects the U.S. economy before raising rates again?

Mrs. YELLEN. We are watching very carefully what is happening in global financial markets. It would appear that stresses that we have seen since the turn of the year relate to uncertainties regarding Chinese exchange rate policy. There are uncertainties around the price of oil. We have not seen shifts in—that seem significant enough to have driven the sharp moves we have seen in markets.

There would seem to be increased fears of recession risk that is resulting in rises in risk premium. We have not yet seen a sharp drop-off in growth, either globally or in the United States, but we certainly recognize that global market developments bear close watching. As I mentioned, the financial conditions have become less supportive to growth and we recognize that these developments may have implications for the outlook, which we are in the process of assessing.

And I want to make clear that monetary policy is not on a preset course and so our evaluation of the likely impact of those developments on the economic outlook and our ability to meet both our employment and inflation objectives, those are the factors that will govern the future stance of monetary policy. It is not on a preset course.

Mrs. MALONEY. And given the turmoil in global markets and the slowing U.S. economy, some analysts are now talking about the United States possibly falling into a recession this year. What would it take for you to consider cutting interest rates again? A severe downturn in the economy or just stubbornly low inflation?

Mrs. YELLEN. Our commitment is to achieve our congressionally mandated goals of maximum employment and price stability. I do not expect that the FOMC is going to be soon in this situation where it is necessary to cut rates. Let's remember that the labor market is continuing to perform well, to improve. I continue to

think that many of the factors holding down inflation are transitory.

While there is always some risk of recession, and I recognize and have just stated that global financial developments could produce a slowing in the economy, I think we want to be careful not to jump to a premature conclusion about what is in store for the U.S. economy.

So I don't think it is going to be necessary to cut rates, but that said, monetary policy, as I said, is not on a preset course. And if it turned out that would be necessary, obviously the FOMC would do what is needed to achieve our—the goals that Congress has assigned to us.

Mrs. MALONEY. You said in December that you were surprised by how far oil prices had fallen and that you expected inflation to increase once oil prices stabilized. Since the Fed's December meeting, oil prices have fallen even further. They are down about 25 percent since the December meeting and they have fallen 7 percent since Friday.

At the same time, we have also seen inflation expectations fall since the December meeting to the lowest levels in quite some time. Has this caused you to rethink your inflation projections at all?

Mrs. YELLEN. We indicated in our statement in January that these developments led us to conclude that inflation will stay low for a while longer as these developments work through. Clearly, we are watching inflation expectations and, as I mentioned, market-based measures of inflation compensation have moved down now to historically low levels. And that is something we are evaluating carefully.

In December when we raised rates, we indicated that with inflation so far below our objective, we would carefully watch incoming data and revise our expectations. So I don't want to jump to a premature conclusion.

My colleagues and I will issue in March updated projections for inflation taking all the evidence we have at hand into account, but—

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair recognizes the gentleman from New Jersey, Mr. Garrett, chairman of our Capital Markets Subcommittee.

Mr. GARRETT. I thank the Chair.

Chair Yellen, thank you for being here.

I would like to talk a little bit—begin on emergency lending under Section 13(3). It was about a year-and-a-half ago that Senator Elizabeth Warren and myself and Mr. Capuano joined together, and Senator Vitter as well, and sent you a letter expressing our deep concern with what you were doing with regard to implementing the limiting language in Dodd-Frank at that time.

And of course, you have come out now with a rule, despite our admonition and questions in that letter, a rule that would basically allow the Fed to drive a Mack truck through the various loopholes in it, and also, once again, as is typical with the Fed, lacking in clarity and transparency.

That being said, the Fed is not always not clear in what they want to do, and the regulators are not always clear in what they want to do. For example, they came up with the Volcker Rule, and

in the Volcker Rule the Fed was not shy about elaborating on concepts in that statute. In fact, it went so far as to adopt prohibitions in trading assets that were clearly never intended by the statute.

So the Fed and other regulators came up with this part of the Volcker Rule dealing with defining just what the words “proprietary trading” mean. Over 800 pages to make some definitional clarity in the area of Volcker and proprietary trading. Compare that to what you did with—under the limitations that should be in place under Dodd-Frank of 13(3)—47 pages of definition and a lack of clarity throughout it.

So the first question is why in one area can you be exact and precise in precision when you are trying to limit what the private market is doing, but when Congress tells you to put limitations on yourself, you lack that clarity and give it a broad brush?

Mrs. YELLEN. I think we tried in the rule to be as clear as we possibly could. We—

Mr. GARRETT. Let’s take a look at that then.

Mrs. YELLEN. —took a—we, for example—

Mr. GARRETT. Now, let me give you an example.

The Fed claims that it establishes a penalty rate under 13(3), but then you failed to provide any specifics whatsoever of what that rate would be.

Compare that to what Congress did. This committee passed a bill that would establish a penalty rate that would be commensurate with “a distressed borrower.”

So why wouldn’t the Fed be clear on this? What are the rates going to be?

Mrs. YELLEN. Because what a penalty rate is depends on the specifics of a particular situation.

Mr. GARRETT. But can’t—

Mrs. YELLEN. A penalty rate is a rate that when conditions normalize—

Mr. GARRETT. But we know what a distressed borrower is and what the markets are. That is clear. Why didn’t you define it that way, compare it to the regular markets so that a distressed borrower in the markets would be charged the same if they are borrowing from the Fed—

Mrs. YELLEN. Well, in the—

Mr. GARRETT. —or related to it?

Mrs. YELLEN. In the type of situation that we found ourselves in—

Mr. GARRETT. Yes.

Mrs. YELLEN. —during the financial crisis, market rates had shot up to extraordinary levels because liquidity had dried up in the financial—

Mr. GARRETT. I understand what the history of the market was at that time, but you could have provided clarity in here.

So basically what you are telling us is once again, the Fed is going to be in the position of picking winners and losers. By your prior answer, it seems like you are saying that you could charge borrower A one rate and borrower B another rate under similarly situated circumstances. Is that not correct?

Mrs. YELLEN. I think what is an appropriate rate does depend on the circumstances. Financial crises, which is when we would be using this authority—

Mr. GARRETT. But that is—

Mrs. YELLEN. —to set up a broad-based program, are always very unique. And—

Mr. GARRETT. Right. And I think that basically what you are telling us is that nothing really has changed despite the admonition and the law in Dodd-Frank to put a limitation.

And it is not just me saying that, by the way. It is interesting that while you are here testifying today, Governor Fisher is also making public statements as you speak.

We just got part of his statement, and he seems to be saying exactly what you are, that you have not limited 13(3). He said, “But in simple language, strengthening fire prevention regulation does not imply that the fire brigade should be disbanded.”

He goes on basically to say in his comments today that we are not seeing the limitations, that you are going to be able to do similar things to what you did back in, or that—before you were here, that the Fed did the last time around.

Mrs. YELLEN. I want to make clear that I think our 13(3) powers and ability to lend to keep credit flowing in the economy during a financial crisis is a critical power. It played a critical role during the financial crisis.

Mr. GARRETT. So is he wrong when he says that nothing—my interpretation—has really changed? Your powers are the same as they were before?

Mrs. YELLEN. No, a lot has changed. Congress put in place a series of restrictions that they intended—

Mr. GARRETT. But your rule does not implement those, does it?

Mrs. YELLEN. Yes, it does. Our rule does implement those restrictions.

We cannot lend to an insolvent borrower; we cannot lend to help one or more failing firms. We can only put in place broad-based programs, and we have defined pretty clearly in that rule what constitutes a broad-based program. So Congress clearly changed what the Fed can do.

Mr. GARRETT. But it does not—

Mrs. YELLEN. It also gave—provided—

Mr. GARRETT. Governor Fisher is saying we have likely reduced the probability that lender of last resort will be needed, but we have not reduced that probability to zero. So it appears that, in his opinion at least, some of those problems remain.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from New York, Ms. Velazquez.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Chair Yellen, the unemployment rate is down to under 5 percent for the first time in 8 years. However, I remain concerned that unemployment rates remain elevated in the Hispanic and African-American communities.

Does the Fed specifically take unemployment within these groups into consideration when making policy decisions surrounding the Fed fund rate?

Mrs. YELLEN. We track very carefully the unemployment rates and experiences of different demographic groups, and we make a very careful assessment about whether or not the economy is meeting the objective of maximum sustainable employment, which involves taking account of factors like, are particular groups being discouraged from even participating in the labor force because of conditions?

But it is important to recognize that our powers, which involve setting interest rates, affecting financial conditions, are not targeted and can't be targeted at the experience of particular groups. I think it always has been true and continues to be true that when the labor market improves, the experience of all groups does improve.

Roughly now, the unemployment rate in the United States is close to where it was in the fourth quarter of 2007. Now, African-Americans and Hispanics at that time back in 2007 had higher unemployment rates than the population as a whole. Regrettably, because of the disadvantages that these groups face in the labor market, they have historically tended to have higher unemployment rates.

But as the economy has improved and unemployment has come down, the unemployment rates for those groups, for Hispanics and African-Americans, has come down. They have fallen to roughly the same levels that they were in at the end of 2007 while, again, remaining higher.

Ms. VELAZQUEZ. So you—

Mrs. YELLEN. We do look at that, but we don't have tools to target particular groups—

Ms. VELAZQUEZ. I understand that.

Mrs. YELLEN. —rather than others.

Ms. VELAZQUEZ. Do you consider an 8.8 percent unemployment rate among African-Americans today too high?

Mrs. YELLEN. I do consider it too high, and I think there are any number of reasons for that. And I think that the reasons for it are ones that Congress should be considering broadly in designing a wide range of policies.

It is something that we want to see a strong labor market, we want to see continued progress, and we will put in place policies that achieve that. But we cannot target the unemployment rate for a particular group.

Ms. VELAZQUEZ. I heard you.

As you know, Chair Yellen, U.S. employers have created 14 million jobs during President Obama's tenure. However, the labor force participation rate remains low and discouraged people who want to work have stopped looking. How much of the decline in the rate can be explained by the trend of flat or declining wages for many American workers?

Mrs. YELLEN. For the country as a whole, an important reason that labor force participation has fallen and will continue to fall is because of the aging of the population. So that is not going to change and the trend is downward.

But it is also true that for certain subgroups in the population—for example, prime age but less educated men—the trend downward has been particularly steep. And there is a lot of economic re-

search that tries to understand why men have—their labor force participation has declined, and it wouldn't surprise me if wage trends are part of the reason for that.

Ms. VELAZQUEZ. Right.

Mrs. YELLEN. So my guess is that they have played a role in discouraging labor force participation.

Ms. VELAZQUEZ. As wages begin to increase, do you anticipate the participation rate to increase as well?

Mrs. YELLEN. Yes, I anticipate that wage growth will move up somewhat. And I do think that labor force participation is somewhat depressed relative to where it will be in a really full employment economy.

That is why I say I think there does remain some slack in the labor market even though the aggregate unemployment rate is at 4.9 percent. So I do hope that—

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from Texas, Mr. Neugebauer, chairman of our Financial Institutions Subcommittee.

Mr. NEUGEBAUER. Thank you, Mr. Chairman.

And thank you, Chair Yellen, for being here as well. Part of your remarks were about the state of the economy, and I think you are trying to paint a little bit rosier picture, and maybe there is a little bit of a rosier picture, but it is not a good picture.

I am looking at some stats here that we still have 16 million American citizens who are unemployed. In fact, the number of long-term unemployed Americans is 761,000 higher than it was at the start of the recession.

We have 94 million Americans over the age of 17 who have abandoned the job market. Real disposable income is a paltry annual rate at 1.2 percent.

The real GDP is growing just under 2.2 percent. We have more Americans living in poverty than ever before—46.7 million people. And we have 45 million people on SNAP. I could read more and more.

I think the issue that I have been thinking about this week is that when you look at the original purpose the Fed was formed for, and what the Fed looks like today, and I think my good friend Mr. Mulvaney pointed this out, is that basically we have a Fed that is in charge of monetary policy, some other things have been added to that, and then we have a Fed that is the biggest and largest regulator and regulates more assets than any other financial institution in the world.

And it kind of reminds me that while you all are working on one side of the Fed to stabilize employment, keep inflation in check, then on the other side of the Fed you have this huge regulatory structure that has grown substantially and continues to issue very complicated, and some people think that you have become a micro-manager of these financial institutions with the regulations.

So it reminds me of that statement, "We have met the enemy and it is us." Is it counterproductive that you have the—a Fed working on one side to create jobs, and you have a Fed on the other side of the building that is doing things that a lot of people think are killing jobs: micromanaging the financial markets; increasing the cost of capital; and reducing the availability of capital, which

has stymied the ability of this economy to grow? Isn't that self-defeating?

Mrs. YELLEN. I think we have to remember that financial crises are immensely costly to well-being. And it is important to make sure that we do everything—almost everything we can to reduce the odds of another devastating financial crisis.

So we are working hard. We have worked hard in the aftermath of the crisis to make sure that we have a financial system that is safer, sounder, has more capital, higher quality capital, more liquidity, and is less crisis-prone than the financial system that we had that caused this financial crisis.

Mr. NEUGEBAUER. The time is short. You mentioned the word “liquidity,” and I think a lot of people think some of the things that the Fed has done and some of the regulations have actually reduced liquidity in a number of markets. And in fact, you and I have had a conversation about the fact that you all have shown some concern about liquidity.

I wanted to see if you knew that the European Commission has initiated a review process. They said after 5 years of instituting all of these regulations and additional capital requirements, and kind of just piling on of regulation and capital, more capital and regulation—and I am not against having adequate capital, but the problem is that we seem to have an add-on game here and the additional capital also comes with additional regulations.

And so the European Commission has initiated a review process that said, “You know what? Time out here; let's go back and look. We know what we have asked these entities to do; we know what we have impounded them with.”

But the question is, how are the markets responding to this and how have—basically, it is a cost-benefit analysis of all of the policies that have been in place.

Has the Fed thought about, hey, maybe we should stop and analyze what we have done here and see if it is positive?

Mrs. YELLEN. We have a few things we still need to finalize to put in place the Dodd-Frank regulations that were called for, and we hope to complete that work soon. And it certainly is appropriate to evaluate how the system is working. And we do that on an ongoing basis, and I think it is, of course, appropriate to see whether or not there are ways in which we can improve or simplify regulations. And we are in the process of doing that in some very important areas.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from California, Mr. Sherman.

Mr. SHERMAN. Mr. Chairman, I feel like I am at a ballroom dance on the deck of the Titanic. The faith of the American people in our government and institutions is at an all-time low. I have been sitting in this room for 20 years and the room has the feel that it had 20 years ago, except we don't have Alan Greenspan in front of us.

Government institutions work better if they listen to the American people, first, because the American people will then accept the decisions, and second, because we get better decisions.

Yesterday, in a small State that is doing better than most of the country, two-thirds of the people went out in a very, I think, record-setting turnout with inclement weather to say that they are mad as hell, particularly at the financial institutions that this committee deals with. And two-thirds of them voted for the most angry candidate they could find.

Too-big-to-fail should be too-big-to-exist. Madam Chair, in response to the gentlelady from Wisconsin, you said it was basically the Department of Justice's failure to have a single criminal prosecution of those who had robbed the banks and, more importantly, robbed the American people. And I wonder whether you can really just put that at the feet of the Department of Justice?

Because we have learned institutions can get so big that they are too-big-to-fail. Your predecessor was in this room demanding that we bail them out. And, God forbid, you will be again if you allow these too-big-to-fail institutions to continue to exist.

They are too-big-to-jail. And as you point out, you may bar somebody from the banking world, but, gee whiz, in a country with more people incarcerated than any other country in the world, is it really adequate to those who steal hundreds of millions and billions to say, "Well, you can't go back into the banking world?"

So I will ask you as a member of FSOC, we need moral hazard to make sure that major economic decisions made by the giant banks are made correctly. They don't have a moral hazard in the sense of not being able to get capital. People are flooding them with capital at rates that are said to be up to 80 basis points less than they would pay if there wasn't a belief that we would bail them out. So the too-big-to-fail won't be allowed to fail. As you point out, DOJ won't put anybody in jail.

The solution is, use your power under FSOC to break them up. Are you going to break up the too-big-to-fail institutions?

I have asked you that before, and I will ask you it again. I think I know the answer.

Mrs. YELLEN. The answer I will give you is that we are using our powers to make sure that a systemically important institution could fail and it would have systemic consequences for the country.

We are doing that in a whole variety of ways. First of all, we have done many things to diminish the odds that they would fail. We are trying to make them, and I think I can enumerate all the things we have done—

Mr. SHERMAN. Are you willing to call the attorney general and say, "We have this thing handled so well that you can start criminal prosecutions because they are not too-big-to-jail anymore?"

Mrs. YELLEN. I said that I am in favor of going after individuals who are guilty of wrongdoing.

Mr. SHERMAN. With such penalties as barring them from the banking system.

Mrs. YELLEN. Well, —

Mr. SHERMAN. I want to move on—

Mrs. YELLEN. —what I said is those are the sanctions that the Federal Reserve can impose.

Mr. SHERMAN. I need to move on to another question.

You are a governmental entity, but it is—in some parts of the entity it is one bank, one vote. It is the only part of our constitutional

system that puts governmental power in the hands of one bank, one vote.

Are you going to use your considerable power to oppose legislative efforts to try to make the regional bank governors appointed exclusively by the President and to try to make the regional banks subject to the Freedom of Information Act?

Mrs. YELLEN. Congressman, I think the current structure of the Fed is something that Congress decided after a long debate and weighing of a whole variety of considerations. I would say I think it has worked pretty well, but it is certainly something—

Mr. SHERMAN. Wait, excuse me, Madam Chair. Are you saying that the Fed, having just lived through 2008, with people not getting raises, that this whole system has worked well?

Mrs. YELLEN. I'm sorry. I thought you were asking about our governance.

Mr. SHERMAN. Your governance has led to the decisions that have nearly brought this country to its knees.

I yield back.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Missouri, Mr. Luetkemeyer, chairman of our Housing and Insurance Subcommittee.

Mr. LUETKEMEYER. Thank you, Mr. Chairman.

And welcome, Madam Chair.

It is kind of interesting, as you discuss all the questions that have been asked you here with regards to your ability to micro-manage the economy, and as you make the decisions at the Federal Reserve to try and do something about unemployment and try and do something about the inflation rate, I look at some of these things and I am just kind of stunned.

Let's start off first with what happens if we have a downturn and you already have \$4 trillion on your balance sheet? What levers are still allowed or are available to you to do something?

Mrs. YELLEN. The Fed has an array of tools.

Mr. LUETKEMEYER. Which are?

Mrs. YELLEN. Most importantly, the path of the short-term interest rates.

Mr. LUETKEMEYER. Madam Chair, they are already down to almost nothing. How is lowering the rates going to help when they are almost nothing right now?

Mrs. YELLEN. One of the ways in which markets work is that they form expectations about what the likely path of the Fed funds rate will be over time. Those expectations influence longer-term rates in the market.

And when the economy weakens, market participants naturally expect the Fed, in pursuing our mandate, to follow a shallower path of interest rate increases, and that shift in expectations moves longer-term rates.

I think you can see that just over the last several weeks, as I mentioned, longer-term Treasury yields have come down as market participants have become more fearful about a recession. And their—

Mr. LUETKEMEYER. Forgive me for intruding, but I have more questions here. So are you saying that this is a good time, then, to start to reduce your balance sheet?

Mrs. YELLEN. We—

Mr. LUETKEMEYER. Lower interest rates, it would be a nice time to short-shift that, wouldn't it? Are you intending to do that?

Mrs. YELLEN. We have indicated that we want to make sure that normalization is well under way before we begin to shrink our balance sheet.

And our decision to do that reflects the fact that we feel that moving short-term rates is a more reliable and understandable and predictable way to manage the economy.

Mr. LUETKEMEYER. Okay.

Mrs. YELLEN. And so we are going to wait to shrink our balance sheet until a point when short-term interest rates are somewhat higher.

Mr. LUETKEMEYER. So we may never get there, is what you are saying? Because there is not much room to go down. So, let's—

Mrs. YELLEN. We will have to see.

Mr. LUETKEMEYER. But let me also go into your decision-making process, here.

We have a labor market that continues to—the labor force participation rate continues to go down, and yet, according to your report here, the hourly rate of employees went up. There should be more incentive for people to work, yet they are becoming less. And you use the demographics of our country to indicate that.

So I am concerned that if you look at those numbers, that there is minimal ability of your—the way you explained the answer to Ms. Velazquez a while ago, of you guys to be able to manipulate this.

The second thing is, I am concerned—what other factors do you take into consideration when you look at your rates? For instance, do you look at what the Congress is proposing? Do you look at the court decisions?

Because we had—and there has been a big discussion about trying to stop the inversion, the ability of our companies to go overseas and be able to take advantage of those tax rates. So the discussion is to try and cut corporate tax rates to bring those dollars home.

Do you ever think about those sorts of implications about whenever you make decisions on your rates?

Yesterday, we had a dramatic historic decision by the courts with regards to an EPA ruling that would have dramatically changed the way that we—the cost of energy in this country.

Do you take those things into consideration when you make your rates? Because those are dramatic—they will have dramatic increases or significant impact on our economy.

Mrs. YELLEN. We try to take into account in making our decisions any factor that we regard is important in—

Mr. LUETKEMEYER. But do you have in place right now some modeling with regards to the EPA rule?

Mrs. YELLEN. Not that I know of.

Mr. LUETKEMEYER. Do you have in place any modeling with regards to potential tax cut for bringing dollars home? Or for corporations?

Mrs. YELLEN. We routinely look at the stance of fiscal policy—

Mr. LUETKEMEYER. Do you have a model in place right now, if we cut corporate tax rates, that would allow you to make a decision on that issue?

Mrs. YELLEN. If you were to decide that, our staff would attempt to evaluate—

Mr. LUETKEMEYER. But you don't have one in place right now, is what you just said?

Mrs. YELLEN. Not to the best of my knowledge.

Mr. LUETKEMEYER. Okay. Thank you very much.

I yield back.

Chairman HENSARLING. The time of the gentleman has expired. The Chair recognizes the gentleman from New York, Mr. Meeks.

Mr. MEEKS. Thank you, Mr. Chairman

And welcome, Chair Yellen.

Some of my colleagues may not have been here 9 years ago, 8 years ago, but I have to tell you, I feel better today than when I sat here 8 or 9 years ago. I feel much better today than I did then.

I can remember some of what was taking place then, and the panic that was going on, and the pressure that this government was under. And though we have not completely done what we need to do, because we do need to let wages grow, we do need to make sure we create more jobs, the position that we are in today, would you agree, is much stronger than the position we were in 2007 and 2008?

Mrs. YELLEN. I believe it is. I believe we have made a lot of progress, while recognizing at the same time that there are many households that are suffering and that there are a lot of challenges that people face and structural—

Mr. MEEKS. Which, and I think it is important to acknowledge that, that—how far we have come. And then, I would hope that we would also focus then on what else needs to be done, because we do need to make sure that—especially those individuals who were victimized by the financial crises.

For example, if you look at areas in—and I think Ms. Velazquez talked about it particularly in African-American and Latino communities, they lost a great amount of wealth. Many of them lost their homes; they lost their jobs. And so, they need something so that they can get back, and that is why you see this disparity that is very high right now.

My focus then is we had, and I guess because of what took place in the past, in 1977 we passed the Community Reinvestment Act (CRA). Now, the Fed is in charge of CRA and can enforce it. And today, one of the—what we find still is that individuals in communities that were deeply affected, there is no investment going in, there is no job creation there, there is no access to credit. They don't have credit because of, primarily, the crisis.

So I was wondering, since the Fed oversees and can enforce CRA, what is the Fed doing in helping to implement CRA, compelling some of the large banks to make these investments in these communities as well as into CDFIs, who are focused on trying to make

sure that the kind of investments are there to create jobs, to grow wages in communities that were devastated by the recession?

Mrs. YELLEN. I think CRA is extremely important in making sure that financial institutions, depository institutions serve the needs of their communities, and particularly underserved communities.

We take our enforcement and evaluation of banks' CRA performance very seriously. We have a whole variety of community development activities and programs that are focused on working, using our convening power and their CRA obligations to try to understand and identify what the needs are in particular communities and to try to tell banks what works, what kind of programs are worth supporting that really seem to make a difference in terms of alleviating distress in low- and moderate-income communities.

Mr. MEEKS. One of the things I think is important, because I want to know, and maybe you have the answers, is to show where the banks are making these investments in compliance with CRA. Because I have found that those numbers have surely sunk, and then when I look at access to capital in these communities, you have about 70 million people now who are underbanked or unbanked in these communities, and so CRA could definitely help there.

I would love to follow up with you to find out exactly where the enforcement—who is, in fact, complying and giving and who is not, because there has to be some accountability therein.

Lastly, let me just, in the few seconds I have, because the other thing that I think that is important to look at in some of these communities, because—and today as well, access to credit is absolutely key and essential. And sometimes, in the way credit is looked at, are there alternative systems?

For example, you find some people who pay their rent every month on time, and that is not to be considered when referenced to credit scoring models. So are there other models that you are looking at with reference to how credit scores are considered that the Fed could advocate?

Mrs. YELLEN. I am not sure about credit scores. We would be glad to get back to you on that.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Wisconsin, Mr. Duffy, chairman of our Oversight and Investigations Subcommittee.

Mr. DUFFY. Thank you, Mr. Chairman.

And welcome, Chair Yellen.

I want to take a trip down memory lane, because I think there is some rewriting of what happened in the crisis.

There are a lot of people who bought homes, and for lower-income folks, that is their investment. And a lot of them lost their investment walking into the crisis, devastating families.

I know we want to look to Wall Street and there is blame there. But I think there is a little bit of revisionist history when we say, you know what, Fannie Mae and Freddie Mac didn't have anything to do with the crisis. Fannie and Freddie allowed no-doc loans, no income verification, allowing folks to buy homes they couldn't afford.

And in Dodd-Frank, that was passed by my friends across the aisle, Fannie and Freddie weren't touched at all. Fannie and Freddie were the ones that were allowing folks in this room to get homes they couldn't afford and they were hurt. It didn't touch them.

The regulators had wild authority and power. They failed. And instead of taking a look at the regulation and the regulators, we have re-empowered regulators.

And it's no wonder that big banks after Dodd-Frank haven't gotten smaller. Big banks have gotten bigger. And the small community banks that I am sure service a lot of the folks in this room, and service folks in my community, are going away. That's a big problem.

I just had to get it off my chest.

So there are a lot of exciting things to chat about with you, Chair Yellen. But as the chairman of the Oversight Subcommittee, I do have some concerns about your willingness to comply with our requests.

We sent a letter in the Medley investigation in our oversight of the Fed asking you for information regarding communication. No compliance. Then, we sent you a subpoena in May. You did not comply with that.

We had partial compliance in October.

We are now a year after my initial letter. I have asked you for excerpts of the FOMC transcripts in regard to the discussion—in regard to the internal investigation on Medley. You have not provided those to me.

Is it your intent today to promise that I will have those if not this afternoon, then tomorrow?

Mrs. YELLEN. Congressman, I discussed this matter with Chairman Hensarling and indicated we have some concern about providing these transcripts.

Mr. DUFFY. Finding the transcripts?

Mrs. YELLEN. I said with providing transcripts, given their importance in monetary policy.

Mr. DUFFY. So let me just—

Mrs. YELLEN. And I received a note back from Chairman Hensarling last night quite late indicating your response to that. And we will consider it and get back to you as soon as we can.

Mr. DUFFY. Oh no, no. I don't want you to consider it. And I think the Chairman would agree with me that this is a conversation not about monetary policy; this is not market-moving stuff. This is about the investigation and the conversation of a leak inside of your organization.

This institution is entitled to those documents. Would you agree?

Mrs. YELLEN. I will get back to you with the formal answer.

Mr. DUFFY. No, no, listen.

Mrs. YELLEN. I believe that we have provided you with all the relevant information.

Mr. DUFFY. That is not my question for you, Chair Yellen. If I am not entitled to it, can you give me the privilege that you are going to exert that is going to let me know why I am not entitled to those documents?

Mrs. YELLEN. I said we received well after the close of business yesterday a letter explaining your reasoning, and I will need some time to discuss this matter with my staff—

Mr. DUFFY. No, I don't want—

Mrs. YELLEN. —before I give you a final answer.

Mr. DUFFY. I don't want—listen. I sent you a letter a year ago, on February 5th. I had to send you a subpoena.

You knew that I was looking for these documents; you knew I was going to ask you about this today. So if you are not going to give me the documents, exert your privilege. Tell me your legal authority why you are not going to provide this to us.

If this is market-moving, I would be sensitive to that. This is not monetary policy conversations; this is about the internal workings of the Fed.

And I am not asking for all the transcripts; I am just asking for the excerpts specific to our investigation and oversight of the Fed.

Let me ask you this: You get to oversee banks. If you made a request to a bank for information a year ago and they said, "Let me review with my board. Let me talk about it," but they never comply with your request for documents or information, what would the Fed do?

Mrs. YELLEN. I think we have complied very fully with the requests that you have made.

Mr. DUFFY. I am asking, what would you do if you made that kind of a request to a bank that you oversee? What would you do?

Mrs. YELLEN. We work with banks to make sure we have access to the information.

Mr. DUFFY. If they didn't, I can't imagine what the Fed would do if someone didn't comply with your request. And guess what, we are entitled to the documents. We expect to get them unless you exert a privilege, and there is no privilege that you have. So I expect they will come over.

I yield back.

Ms. WATERS. Mr. Chairman?

Chairman HENSARLING. The time of the gentleman has—for what purpose is the ranking member seeking recognition?

Ms. WATERS. Is it appropriate to ask for unanimous consent for clarification on a point of information that was just given by the gentleman?

Chairman HENSARLING. Does the lady have a parliamentary inquiry?

Ms. WATERS. The inquiry could be considered parliamentary. I understand the gentleman to say that they subpoenaed the Fed and it was ignored. Is that what he meant?

Chairman HENSARLING. The gentlelady is not stating a parliamentary inquiry, and as I think the ranking member knows, the time of the Chair is limited. If other members wish to pursue that in their questioning, they may pursue it in their questioning.

The Chair now recognizes the gentleman from Texas, Mr. Hinojosa.

Mr. HINOJOSA. Thank you, Chairman Hensarling and Ranking Member Waters, for holding this hearing today.

Chair Yellen, I thank you for meeting with our committee today and for your steadfast leadership at the Federal Reserve. America has made great progress since the financial crisis of 2008.

Our recovery includes 70 consecutive months of job growth, the longest streak in our Nation's history, resulting in an astounding 14 million private-sector jobs created. And an unemployment rate now standing below 5 percent.

However, we continue to feel the hangover from the financial crisis started during President George W. Bush's second term. Today, the slower-than-average economic growth rate is fueling anxiety and weakening confidence in our Nation's economic growth prospects.

Additionally, our economy appears to be sailing into strong headwinds caused by slowing growth in the developing world, stagnant growth in Europe, the dual effects of plunging oil prices and a strong dollar negatively affecting our manufacturing and export industries.

Addressing those challenges also requires us to answer questions regarding the sustainability of our national debt and of the ability of Congress and the Federal Reserve to act effectively to stimulate the economy.

Despite that market turmoil and economic uncertainty, however, I will note that our Nation's confidence in the safety and soundness of our financial system has not been shaken. Indeed, we can attribute a much stronger and more resilient financial system in large part to the protections and improvements of the market oversight under the Dodd-Frank Act.

My first question, Chair Yellen: What else should our Nation be doing to help us return to normal growth rates?

Mrs. YELLEN. One of the distressing aspects of the recovery we have seen—I agree with you that we have made progress in the labor market, created a lot of jobs and the unemployment rate is low. But the growth in the economy that has been consistent with that has been quite disappointing.

So another way of saying what that implies is when output is growing at a very weak pace and you have a lot of job growth, that means that productivity growth has been very disappointing since the financial crisis, and ultimately that determines living standards.

Mr. HINOJOSA. Chair Yellen, do you think we are dragging down the potential growth rate of our economy and doing a disservice to our young men and women by saddling them with debt just as they are setting out to become full contributing members of our workforce and economic engine?

Mrs. YELLEN. I think the debt situation that faces this country over the longer term is something that Congress certainly needs to address. While at this point the debt-to-GDP ratio looks like it should be sustainable at present levels for a number of years, as the population ages, it will—this is evident from CBO projections—be on an unsustainable upward course, and this is something Congress has known about for decades and it is important to address.

Mr. HINOJOSA. It seems to me that while Congress must do its part to raise the minimum wage, expand the Social Security safety net, and provide a more progressive tax code, what steps are you

taking at the Federal Reserve to address the historic level of inequality in the United States?

Mrs. YELLEN. Congressman, the main contribution that the Fed can make to inequality, given that we don't have policies that target particular groups in the labor force, is to make sure that the labor market is performing well, that we attain Congress' maximum employment objective.

I am pleased with the progress we have made, but there is further to go, and we are committed to making sure that we stay on that course of further improvement in the labor market.

And it won't right every disadvantage that workers face, but it has resulted and will continue to result in broad-based gains for all groups in the workforce.

Mr. HINOJOSA. My time has run out, and I yield back.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from California, Mr. Royce, Chairman of the House Foreign Affairs Committee.

Mr. ROYCE. Thank you, Mr. Chairman.

Chair Yellen, it's good to see you. Thank you for being here.

The latest stress-test scenario that was published by the Fed includes this scenario where the rate on 3-month U.S. Treasuries drops below zero from the second quarter of 2016 through 2019.

And I recognize that this in no way predicts any future action here. As a matter of fact, CCAR announced specifically in the document there that this scenario does not represent a forecast for the Federal Reserve.

Nonetheless, this timing is interesting because it comes at a time when the European Central Bank and the Bank of Japan have both instituted these negative interest rate policies.

So the question I was going to ask you—and let me make one other point. It may suggest that the Federal Reserve is not opposed to reducing its target rate below zero, should economic conditions warrant, and may be employing the stress-test process as a tool to consider its possible impacts. That strikes me as maybe the reason you deployed it in the scenario.

You told the committee in November that if the economy were to deteriorate in a significant way, potentially anything, including negative interest rates, would be on the table.

And I remember those remarks were echoed in January by New York Fed President Bill Dudley.

So assuming for a minute that the Fed figures out this question about the legal authority, do you still believe that negative rates are a tool in the toolbox? And can we assume that the Federal Reserve would not include this scenario in a stress test if, in fact, it were not a potential future action?

Mrs. YELLEN. Let me say that was not what motivated the inclusion of this scenario in the stress test. We are in an environment where, as you pointed out, a number of the ECB, other European central banks, and the Bank of Japan, have gone to negative rates.

Through much of Europe, and in Japan, interest rates are negative way at the yield curve. And we have had periods of market stress, where we see a flight into U.S. Treasuries as a safe haven, and the scenario that we ask banks to look at is one in which Treasury bill yields go negative.

This is something that could potentially happen without the Fed actually setting negative interest rates. It is something that could happen, and we have seen it happen for limited periods of time in stressful situations.

Mr. ROYCE. Let me ask a clarifying point—

Mrs. YELLEN. But—

Mr. ROYCE. —because it has been kicked around since 2010, the possibility of the Fed maybe setting negative interest rates. Right?

Mrs. YELLEN. Well, yes.

Mr. ROYCE. Quick question on looking at the Fed authority, you haven't taken a serious look at the Fed authority until now, while it was kicked around then and you do the scenario in the interim?

Mrs. YELLEN. Back in 2010 when we were looking for ways to consider—to add accommodation, to have a toolkit available, it is something we looked at. We got only to the point of thinking that it wasn't a preferred tool.

Mr. ROYCE. Right.

Mrs. YELLEN. We were concerned about the impacts it would have on money markets. We were worried that it wouldn't work in our institutional environment. And we thought that zero was really the effective or very—

Mr. ROYCE. I got it.

Mrs. YELLEN. —just very little was—could be gained.

Mr. ROYCE. Let me ask you, then, really quickly—

Mrs. YELLEN. We would—in the spirit of prudent planning—

Mr. ROYCE. —right. Yes.

Mrs. YELLEN. —it is something that, in light of European experience, we will look at, we should look at, not because we think there is any reason to use it but to know what could potentially be available.

And it isn't just a question of legal authority. It is also a question of, could the plumbing of the payment system in the United States handle it? Is our institutional structure of our money markets compatible with it? We have not determined that.

Mr. ROYCE. Let me just say that I think that the central banks in Japan and Europe are trying to overcompensate for irresponsible fiscal policy. I think that is what put them in this position.

Can we avoid the same mistake here in the United States if we get our fiscal house in order? In other words, do you agree that if we address the long-term structural problems with soaring mandatory spending, we would decrease the potential need for monetary policy actions that reverse course on interest rates?

Mrs. YELLEN. I think it is certainly desirable and important for the long-run stability and growth of this country to take the measures that you have suggested and evaluating the stance of fiscal policy. It is something that affects our monetary policy options.

Mr. ROYCE. Thank you, Chair Yellen. Thank you very much.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Georgia, Mr. Scott.

Mr. SCOTT. Chair Yellen, thank you for being here. Chair Yellen, you know I have a lot of respect for you.

Mrs. YELLEN. Thank you.

Mr. SCOTT. But I very vehemently disagree with you when you say that you can't target unemployment.

Let me just say this: It is very important for everyone to know that you have an equal mission. Part of that mission, one half of it, is to curb inflation. But the other half is unemployment.

And so just as surely as you go and you target inflation with movement of your interest rates, surely you have to understand that you have the same authority to deal with the unemployment.

Now, let me tell you why this is important, Mrs. Yellen: Nobody is suffering from unemployment like the African-American community. And they are suffering from that because of the very laissez-faire attitude that the Fed historically has dealt with just employment or unemployment altogether.

When you look—yes, we can crow about a 4.5 unemployment rate. Do you know what the unemployment rate is for African-American men between the ages of 18 and 37? It is 36.5 percent unemployment. And in some communities like Chicago, Baltimore, Atlanta, Houston, any of these big cities, it is hovering at 50 percent.

When you have this devastating situation, there is nobody else—there is no other agency that has the mandate to deal with it as the Fed. Now, in order to deal with it, you have to look at the economy like it is a wheel. The economy is a wheel.

And why is it that we have this high unemployment rate among African-American young men? And African-American women in that same age group is 26 percent. So why is it that we can't? And a part of that reason is because the Fed has historically downplayed unemployment.

Never in the history of the Fed have you even seen fit to have an African-American president of a regional Federal bank for the Federal Reserve. That is a part of the reason. We are not even a part of the conversation.

So my whole point is that I want the Fed—nobody is better equipped to handle this rigid unemployment facing the African-American community in that most pliable age group. That is the child-producing age group, 18 to 37.

Can you imagine if that was the employment rate of 37.6 percent of white young men in that age group? All hell would be breaking loose right now to do something about it.

We need that same compassion from you. When you look at the sectors of the economy that are growing—transportation, energy, agriculture business, health care, construction, rebuilding the infrastructure, manufacturing—we need an advocacy from you to say automatically, there must be on-the-job training programs for African-Americans in this hard group to go into these areas and earn as they learn.

In agro-business, we have 1890s colleges, 19 of them, whose authority and mandate through the Farm Bill is to take the money that we give them through the Farm Bill and spend in teaching, research, and extension. Why not create the other spending category for scholarships and loan forgiveness, students who will go in and take advantage of these job openings in agriculture and business?

All I am saying is that, please, we have to get the Fed to get off the dime and put the issue of African-American unemployment on the front burner. That is the core of all of the domestic issues that we are facing. And that is the child-bearing group. What are these fathers to do? What is there for them?

That is why we have so many of the situations in Baltimore, in Chicago, and in other places, and it leads to a straight pipeline to why we have 1.2 million of them sitting in the prisons. Would you help us with that?

Mrs. YELLEN. Congressman, I—

Mr. SCOTT. I would love to work with you on it.

Mrs. YELLEN. —want to assure you that we recognize how serious the problems are that you have discussed, and we take our employment mandate extremely seriously and have been doing everything that we can to promote a stronger labor market that will benefit African-Americans.

Mr. SCOTT. Would you really consider getting an African-American, for the first time in history, to be a regional president of a Federal Reserve bank for the first time in history?

Mrs. YELLEN. Absolutely. It is our job to make sure that every search for those jobs assembles a broad and diverse group of candidates, and I regret that there hasn't been an appointment of an—

Mr. SCOTT. Thank you, Mrs. Yellen.

Chairman HENSARLING. The time of the gentleman has expired.

Mr. SCOTT. Thank you, Mr. Chairman.

Chairman HENSARLING. The Chair now recognizes the gentleman from Florida, Mr. Posey.

Mr. POSEY. Thank you, Mr. Chairman.

Madam Chair, the number one thing I hear from my local community banks and credit unions is the need for regulatory release. That is not news to you, obviously, either. And these financial institutions provide critical services to our communities, and they are worried that the overregulation is hurting not only their ability to provide those services, but eventually is clearly leading to increased industry consolidation.

What do you consider to be the negative consequences, if any, that result from consolidation, and the effects on the local and national economy?

Mrs. YELLEN. I think community banks play a vital role in supplying credit to groups of borrowers whom larger banks often would not be able to serve. And that is a vital role in all communities throughout the country, so we want to see those banks thrive, and are very focused on ways that we can reduce the burden on those banks.

I mentioned earlier some of the things that we have tried to do to reduce the burden, and we will continue looking through the EGRPRA process, and by the regular meetings and contact that we have with community bankers, to address the burdens that they face and look for ways to simplify regulation and reduce burden.

Mr. POSEY. Madam Chair, do you think that relationship lending is important?

Mrs. YELLEN. It has been very important often for community banks in the kind of business that they do, so yes.

Mr. POSEY. Just a quick follow up: Can you identify some areas of priority at the Fed for reducing regulatory burdens on community banks?

Mrs. YELLEN. Yes. We have been focusing, for example, on the duration of our on-site reviews and looking for ways to have our examiners spend less time on bank premises. We have been looking at ways and have simplified and tried to tailor our pre-examination requests for documentation.

We have been conducting extensive training for examiners to make sure that our guidance is properly interpreted and applied in ways that are consistent. We have a number of fora in which we try to help community bankers understand what new regulations or proposals are relevant to them and which ones are not intended at all for their organizations.

As I mentioned, the EGRPRA process is ongoing, and we have been holding fora around the country to hear the concerns of banks with regulatory burden and will take all of the steps that we possibly can to address the concerns that surface.

We meet regularly with community bankers through an organization called CDIAC, which is composed of representatives from each of the 12 Federal Reserve districts. They come to the Board and we meet with them twice a year, the full Board of Governors, to discuss their concerns, and we follow up on what we hear.

Mr. POSEY. Thank you.

Finally, this week the House is considering legislation that would require the Administration to put forth a detailed plan to reduce the national debt whenever the debt limit is increased—a common-sense concept, I believe. We also just received the President's budget request, which would, in the face of a \$19 trillion—we just passed the \$19 trillion mark in the debt clock—increase spending by \$2.5 trillion.

When the President took office, the national debt was roughly \$10 trillion. When he leaves office, the debt is expected to have doubled to about \$20 trillion. You have also voiced your concerns about the impact of failing to raise the debt limit, failing to pay our bills, citing the impact it would have on the economy.

I don't disagree, but I am curious, do you have similar concerns about the impact on the economy of failing to address our national debt? How much debt do you think is too much?

Mrs. YELLEN. I think if you look at the path that the U.S. Fed is on under current policies, it will rise from the present level to levels well above 100 percent of GDP and continue rising more or less indefinitely. And wherever you draw the line, you have to conclude that is an unsustainable economic situation. So I think it is essential that Congress address this longer-run budget deficit issue.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Texas, Mr. Green, the ranking member of our Oversight and Investigations Subcommittee.

Mr. GREEN. Thank you, Mr. Chairman.

I thank Chair Yellen for appearing today, as well.

Mr. Chairman, Chair Yellen and, of course, Ranking Member Waters, I want you to know that there has not been some sort of

conspiracy among Congressional Black Caucus members to bring up this issue of black unemployment, although I think we do talk about it among ourselves quite regularly.

But I do believe that a basic premise that may be of help to us is the notion that, "In the beginning was the Word." And not enough talk takes place among those who have the power to influence public policy with reference to African-American unemployment. To this end, I am concerned, and would ask if you have, in your statement, given a specific reference to African-American unemployment in the statement that you made today?

I apologize if I missed it, but was there a specific reference to African-American unemployment?

Mrs. YELLEN. I referenced in the answer to a previous question the very high rates of unemployment of African-Americans that persist even with the current aggregate unemployment rate.

Mr. GREEN. If I may, let me share this thought with you: If it is—and I believe you are in agreement that it is a serious problem—not just a problem, a serious problem.

Mrs. YELLEN. I certainly agree with that.

Mr. GREEN. If it is a serious problem, I would ask that you make it a part of your actual statement that you present, and that you publish it, and that you continue to say to those of us who can make a difference—and we should be able to make the difference here in Congress; we have responsibilities here to focus as well—but if you would make it a part of your statement, and if you would publish this, I think it can have a meaningful impact on policy-makers up and down the line.

So just a small request, but I think it can make a really big difference, so I am going to ask that you do this.

Mrs. YELLEN. I am certainly open to doing so. I will certainly—

Mr. GREEN. Thank you.

Now, let's move to the Taylor Rule for just a moment. You have indicated that the Taylor Rule would be a grave mistake and that it would be detrimental to the economy and the American people. Could you, in about 1 minute, give some examples or an example of how it would be detrimental to the economy? That is a sort of a nebulous term and I think you should provide some clarity.

Mrs. YELLEN. Sometimes, it provides recommendations for what monetary policy should be that clearly overlook important circumstances, and—

Mr. GREEN. If I may, Madam Chair, would you kindly explain the impact that it will have on the economy? What would the impact be if it causes us to do something inappropriate? And I will let you decide what is inappropriate.

Mrs. YELLEN. Either it would have us set a monetary policy that would result in much higher unemployment than would be desirable or, alternatively, there could be circumstances in which it would recommend an accommodative policy that would result in extremely high inflation.

Now, I would say right now, as an example, the Taylor Rule would recommend an overnight short-term interest rate that would be close to 2.5 percent, and I think in light of the slow growth in the U.S. economy and the fact that we have needed to hold the Federal funds rate for almost 7 years—for 7 years at zero to

achieve the progress that we have made, that setting it at the level that it would now recommend would be highly damaging to the economic situation.

And we tried to provide some analysis in the monetary policy report we submitted about what—why that is, and in particular this idea that the neutral Fed funds rate, because of the damage from the financial crisis—

Mr. GREEN. I regret that I must reclaim my time because I have one additional thing that I must say. I appreciate your commentary and I think that a good many people have the point.

But I want to say this: We have some people who are visiting today. I don't want any response from them, but I want to acknowledge their presence because they are concerned about these wages. Now, they are concerned about wages across-the-board, especially as they impact working people, people who are on salaries, people who make minimum wage.

And it is our desire to see policies that will have greater employment, greater opportunities, but also policies that will target those who are hurt the most.

I thank you, Mr. Chairman. I yield back.

Mr. MESSER [presiding]. The gentleman's time has expired.

The Chair now recognizes the gentleman from Pennsylvania, Mr. Rothfus, for 5 minutes.

Mr. ROTHFUS. Thank you, Mr. Chairman.

Welcome, Chair Yellen.

I want to talk briefly about custody banks, which you know follow a different business model from other financial institutions. Custodians do not make consumer loans or engage in investment banking, and for these reasons pose relatively little credit risk. I understand that custody banks, whose customers would include, for example, pension funds with millions of beneficiaries, are finding it increasingly difficult to provide their core custody services, especially accepting large cash deposits. And this could worsen under a period of stress.

One of the main reasons for this appears to be recent regulatory reform, such as the supplementary leverage ratio known as SLR. Custody banks typically place cash received on deposit with the Federal Reserve. This is cash that comes from pension funds, endowments, municipalities, and other clients.

However, the Federal Reserve's supplementary leverage ratio does not recognize the essentially riskless nature of Fed deposits or the necessity of these placements by custodians. This may cause the leading custody banks to reject a customer cash deposit.

My question is: Is the Federal Reserve aware of the impact that this may be having on custody banks? And if so, what do you propose to do about it?

Mrs. YELLEN. This is something that was considered, what is the appropriate treatment of central bank deposits, when the supplementary leverage ratio was adopted. And the decision was made at the time that the leverage ratio is not our main capital tool, but a backup capital tool that is intended to, in a crude kind of way, base capital requirements on the overall size of a firm's balance sheet, and that for that reason it should be included.

We have more recently put in place capital surcharges that apply to the eight largest U.S. banking organizations, including two custody banks. And it is likely that once those are in place, they will become the binding capital requirement. But—

Mr. ROTHFUS. I would encourage you to take a look at it because it is an issue for the banks.

Mrs. YELLEN. We have heard of the problem, and I will address it.

Mr. ROTHFUS. As you know, Chair Yellen, the Bank of Japan recently announced that it would implement a negative interest rate policy in an effort to increase spending and investment and spur growth. The decision follows close on the heels of the European Central Bank's announcement that it would also launch additional monetary stimulus in March, and economists have predicted that Sweden, Denmark, Norway, Canada, Australia, and China may follow suit.

In a recent editorial in *The Wall Street Journal*, William Poole, the former president of the Federal Reserve Bank of St. Louis, argued that these sorts of monetary policy gimmicks will not create their intended effects and instead they will only serve to divert attention from the actual structural problems that have plagued growth in the United States and around the world over the last decades, namely regulatory burdens and tax policies that serve to constrain business investment and long-term growth.

What do you say in response to Mr. Poole?

Mrs. YELLEN. I agree that there are structural factors that have restrained U.S. growth and also been responsible for rising inequality in the labor market. And it is important to take steps to address those problems. They are steps that are in the domain of Congress.

But it is important for the Fed to try to achieve its mandate of ensuring a state of the labor market where people who want to work are able to find jobs, where there are a sufficient number of them.

And, given the stressed situations that exist in Europe where there remains very high unemployment, and in Japan where inflation has for well over a decade undershot their inflation objective, it is a tool that has proven useful to them.

Mr. ROTHFUS. I want to talk a little bit—you testified earlier that over the past number of years, the Fed kept the Federal funds rate at exceptionally low levels. You testified that even with this “exceptional” strategy, the economy achieved only 2 percent growth. And you added that “The economy is being held back by headwinds.”

I am wondering if any of these headwinds are manmade, or, to borrow a phrase, anthropogenic here in the United States? And I could identify some: the Affordable Care Act; a Wall Street reform bill that missed the mark, frankly; EPA regulations.

And these headwinds have hit folks in my district, like a mom who now has to pay \$400 for allergy medicine for her kid when she used to pay \$10; or the coal miner I talked to last week who is taking care of a 5-year-old, a 3-year-old, and a 1-year-old and won't be able to pay for his mortgage.

And I just wonder, when the economic history of this decade is written, are they going to say that the Fed tried to do with monetary policy what should have been done with fiscal policy?

I yield back.

Mrs. YELLEN. I think it is also important for Congress to address structural factors that are holding down growth.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Missouri, Mr. Cleaver, ranking member of our Housing and Insurance Subcommittee.

Mr. CLEAVER. Thank you, Mr. Chairman.

Thank you for being here, Madam Chair.

Following through on some things that were said earlier, I have a bad knee and I have had it operated on 11 times, but the weird thing is that whenever I go to the hospital for another surgery, they never operate on my shoulder or my fingers. For some strange reason, they always operate on the same knee that has been hurt. And I know that is weird.

The issue is we can't address unemployment in a certain sector by saying we are going to operate on the whole body and it gets better. That has never been true.

Now, I differ a little from my colleagues in that I don't think it is your responsibility. I don't think the Fed has the responsibility even with the dual mandate. I think it is to be handled legislatively, and I don't think we are going to get that done.

The other thing I have to say is that—and it is been said, and every time you come I have to say it because I have to just get it off my chest, because I do think that we are declaring minority unemployment to be too-big-to-curtail, and that is somewhat troublesome.

But Wall Street and the big six banks are too-big-to-jail. If you rob a convenience store, you go to jail. If you rob 300 million Americans, you get a cocktail. And I think that is what is creating all this anger around the country.

I know you don't run the Justice Department, and I know you don't vote on legislation that could address some of these other issues. But I think we have to say it as much as we can because I don't think the world is hearing us.

Now, I would like to yield the remainder of my time to the ranking member of the Financial Services Committee.

Ms. WATERS. Thank you very much, Mr. Cleaver.

As you know, originally I was thinking about dealing with the question of the subpoena, et cetera. Except if you don't mind, I am so focused on all of this money that goes to these too-big-to-fail banks and trying to understand, number one, not only the fact that Goldman Sachs got \$121 million, JPMorgan \$910 million, and that with the rise in interest rates from 0.25 percent to 0.5 percent, this will double.

And this money keeps—it is going to the big banks. It is a subsidy to keep them from lending money, and we have this big need that has been discussed by my colleagues about this high unemployment rate and the lack of creativity and thinking about how we can deal with this. And these banks, too-big-to-fail, who we are

finding every day because of the predatory lending, et cetera, are getting support from the Feds.

Please, please explain that.

Mrs. YELLEN. It is an essential tool that we need to adjust the level of short-term interest rates. And from the standpoint of the taxpayer, our payment of those interest on reserves—we have very large reserve balances. We have \$2.5 trillion, roughly, of reserves in the banking system, as compared with \$20 billion or \$30 billion prior to the crisis.

The counterpart of that on our balance sheet is that we hold a very large stock of assets on which we are earning a substantially higher rate of return than we are paying to the banks. And that differential between what we earn on our holdings of long-term Treasuries and mortgage-backed securities and the 25 or 50 basis points we pay to the banks, that differential all shows up in the taxpayers' pocket. It is money that Congress can use to address all of the problems that you have discussed. Over the last year, we transferred \$100 billion because of that.

Now, if we don't pay interest on reserves and must use another technique to adjust short-term interest rates, likely we will be forced to greatly shrink our balance sheet in a rapid fashion, and the total amount of money going from the Federal Reserve to Congress will be significantly diminished. In addition to that, it would have very adverse effects on the economy.

Ms. WATERS. I want you to know that not only am I concerned, it looks like we are about to have some bipartisan concern on this issue.

Mrs. YELLEN. I hear that.

Ms. WATERS. And while I understand the argument that you are making about the big banks, we cannot feel sorry for them in terms of the amount of interest rates that they are getting or not getting, et cetera. We really do have to deal with this issue.

I understand what you are trying to explain by short-term interest rates, but if I may, Madam Chair, let me just say this, that we have an opportunity with the discount window to allow for loans from some of these small community banks that they are not getting. And if that money went into the small community banks, they would be able to do job creation and to support small businesses, et cetera.

And we just don't get why they are precluded from doing this, and increasing the job opportunities in the community, while we have given the subsidy to the big banks. We just don't get it.

Chairman HENSARLING. Although I agree with much of what the ranking member has said, she has long since spent her time.

The Chair now recognizes the gentlelady from Utah, Mrs. Love. Mrs. LOVE. Thank you, Mr. Chairman.

Thank you, Chair Yellen, for being here today. Chair Yellen, I am increasingly concerned about the impact of Dodd-Frank regulations on real economy, economic growth, and especially job creation, which I would like to just ask you a few questions about.

If you look beyond the headlines, the headline numbers from last Friday's job numbers, and include discouraged workers and the underemployment, real unemployment remains high, nearly 10 percent. In addition, millions of people have stopped looking for

jobs. They have dropped out of the workforce, and it is a dynamic that is driving the Nation's workforce participation rate to an all-time low at 62.7 percent.

And I want you to know that I agree with my colleague on the other side of the aisle, Representative Scott, when he talks about the large number of unemployment with our young Black Americans. Meanwhile, economic growth slowed to just 0.7 percent in the fourth quarter.

I am concerned the Fed and other financial regulators may not have a firm grip on the cumulative impact on the real economy of thousands of pages of the new Dodd-Frank regulations, especially new capital and liquidity rules. I am wondering if you share some of those concerns?

Mrs. YELLEN. I recognize that some of the new concerns are burdensome and do raise banks' cost of financial intermediation. In designing those regulations, we are always trying to achieve a balance between the benefits of creating a sounder and more resilient financial system that is less likely to be subject to the kind of devastating financial crisis that we had.

We are balancing that against burdens that can raise the cost of capital or diminish financial intermediation. And we have tried to strike a reasonable balance, remembering that nothing resulted in more harm for a longer period of time than the financial crisis that we lived through, and I think we now have a much safer and sounder financial system.

Mrs. LOVE. Okay, so another study by the American Action Forum found that consumer credit availability deteriorated 12 percent to 14 percent since the passage of Dodd-Frank. I am also concerned about the growing number of borrowers unable to access affordable banking—including a lot of borrowers from low-income areas in my district, which is Sigurd, West Valley. These are hard-working Americans who are turning to high cost and unregulated online lenders to be able to get the access to the credit that they need, whether it is for purchasing a car or even starting a small business. They are finding that their ability to access this type of credit is unavailable to them.

And so I am wondering if you also share some of my concerns about credit availability and the higher-cost alternatives?

Mrs. YELLEN. I do share your concerns about credit availability. And I think it is clear that credit availability has, in particular segments, been diminished. Home loans, mortgages, for example, for individuals without pristine credit ratings is really difficult, remains difficult to obtain.

In part, we have regulations that are meant to address harms. I think lending standards were too easy prior to the financial crisis. We don't want to go back to lending standards that are so loose that they lead to the kinds of predatory lending and harms that we had that took a toll on the economy and on low-income households in communities. We need to achieve a reasonable balance, and we are searching for that.

Mrs. LOVE. Being on the Subcommittee on Monetary Policy, I wanted to ask you just a quick question on monetary policy and what is happening in Europe and what are the implications. I may have stepped out of the room; I don't know if you have addressed

this. But very quickly, what are the implications of the Federal Reserve and the ECB pursuing divergent monetary policy?

Mrs. YELLEN. The ECB has been addressing high unemployment and inflation that has slipped very meaningfully below their 2-percent goal by putting in place negative interest rates and large-scale asset purchase programs.

The United States has done better. We are, among advanced economies, about the strongest, so we have divergent monetary policies.

It has put upward pressure on the dollar over a long period of time, which has harmed manufacturing and net exports. And so, it has resulted in negative influences on the part of our economy.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from Missouri, Mr. Clay, ranking member of our Financial Institutions Subcommittee.

Mr. CLAY. Thank you, Mr. Chairman.

And thank you for being here, Chair Yellen.

The Federal Reserve has a congressional dual mandate to seek maximum employment while limiting inflation. To limit inflation, the Federal Reserve raises interest rates, which slows the economy by discouraging people from borrowing to buy homes and cars, and discouraging businesses from investing.

With this reduced demand, businesses will hire fewer workers. And as a result, workers will have less bargaining power, meaning they will be less likely to get pay increases. The decision to raise interest rates is based on the assessment of the Federal Open Market Committee of the Federal Reserve about whether inflation or unemployment poses a greater threat to the American economy.

Unfortunately, the members of the FOMC largely come from the financial industry and, as a result, tend to be more concerned about inflation than the population as a whole, and less concerned about unemployment. So how do we square that, Madam Chair?

Mrs. YELLEN. First of all, I want to say that the committee is deeply focused on unemployment. We have two objectives, not one: maximum employment; and price stability, which we have interpreted as a 2 percent inflation objective.

And I would really take issue with the idea that we are not focused on achieving our maximum employment objective. We are.

Monetary policy has been highly accommodative. The Fed funds rate was at zero for 7 years. And we also have a large balance sheet that has provided a lot of additional accommodation.

So we are not talking about tightening monetary policy, or a tight monetary policy. We have an economy that now has made substantial progress, creating 13 million jobs with the unemployment rate down to 4.9 percent.

We took one small step to raise short-term interest rates but continue to have an accommodative monetary policy, which we see as consistent with further progress in the labor market. So it is not that we are trying to reverse progress. We continue to see, even with modest increases and interest rates, further progress, and we want to achieve it precisely because we think that although the unemployment rate is at levels that are probably normal in the longer run, there remains slack in the labor market. We want to see more progress.

Mr. CLAY. Although—not to cut you off—we could get to 4 percent unemployment. But, look, while we are pleased to see that new jobs are continuing to be created in our economy and to learn that the unemployment rate last month fell below 5 percent broadly, these positive signs may lead some to ignore the persistent economic challenges faced by African-Americans in this country.

The current unemployment rate for African-Americans, for example, remains at nearly 9 percent. It is a commonly accepted view that access to gainful employment is one of the most important factors in supporting economic mobility and improving health outcomes. It is also widely known that in areas with higher rates of unemployment, there is a lack of consumption, increased crime rates, reduced school funding, and reduced political influence.

Please discuss with us any specific actions that you have personally taken or directed your staff to take to identify solutions to help remedy the historical and continued racial disparity between employment opportunity for African-Americans and Whites.

Mrs. YELLEN. Our staff produces statistics that are among the most important in documenting and highlighting disparities in the economic situations in terms of assets and income by demographic groups. And I have personally given speeches highlighting those statistics. So our staff certainly looks at and does work to document those disparities.

And in our community-development programs and work we discussed earlier that relates to the CRA, that is an area in which we have the capacity to try to identify particular programs that will be helpful in low- and moderate-income communities that suffer from special disadvantage in the labor market, and to try to identify programs that work that we encourage to be adopted on a broader scale—

Chairman HENSARLING. The time of the gentleman has expired.

Mr. CLAY. I would like to work more with you in that area.

Chairman HENSARLING. The Chair now recognizes the gentleman from North Carolina, Mr. Pittenger.

Mr. PITTINGER. Thank you, Mr. Chairman.

I would like to just welcome those who have come today with your T-shirts on: “What recovery?” “Let our wages grow.” “Whose recovery?” These are very pointed and clear statements, and I really commend you for being here and seeing this process.

Yes, the reality is that this recovery is the most dismal, slow, tepid recovery we have ever had from a recession in recorded history. And we look at the realities of this recovery. This last report of new jobs was only 150,000 new jobs. We have a 2 percent dismal economic growth.

Frankly, the demographic group that is the lowest recovery is the low-income, minority people in this country. That demographic group has moved up the ladder less than any other group, albeit an intense effort, well-intended, I am sure, by the Obama Administration, by Chair Yellen.

But through it, what we have seen is very accommodative monetary policy; we have seen a high regulatory environment; we have seen Obamacare; we have seen the highest corporate tax rates in the industrialized world. All of this has achieved this dismal recovery.

And I would say to you that the contrast is back in the 1970s, we had the same type of dismal economic outlook—high inflation, high unemployment. And yet, what happened? We reduced the regulatory environment, we reduced the tax burden, and the economy took off.

We were creating 300,000, 400,000, 500,000 jobs a month. One month, a million jobs. We were growing up to 6 percent.

It seems to me that—logic may come in—perhaps well-intended policies have had an adverse outcome of what was ever intended.

And, Chair Yellen, I commend you for your work and what you have sought to do. But it seems to me that these accommodative policies have contributed to where we are today.

I would say, Chair Yellen, I would like to thank you in your remarks that you made reference to the fact that there are those who are available to work but not actively searching for work. You have also made reference to those who are working part-time and can't get full-time jobs.

Now, these numbers are not included in the current unemployment rate of 4.9 percent. So in reality, we are really talking around 10, 11, 12 percent are the stats that I have seen of real unemployment.

Would that not be correct, Chair Yellen?

Mrs. YELLEN. Broader measures of unemployment are significantly higher. For example, a definition that the BLS refers to as U-6 that includes both of the groups you mentioned—involuntary part-time—

Mr. PITTENGER. The point I want to make is—

Mrs. YELLEN. —and discouraged—

Mr. PITTENGER. —the real numbers are much higher than 4.9 percent. So it is really disingenuous to say to the American people that these policies have contributed toward 4.9 percent unemployment.

In the real world, where people are living—and we have some of them here today—it is far less. And I think that should be understood and absorbed by these wonderful people who have come, that the types of policies that have been enacted, been enforced this last 7 years, have worked against your interests.

What grew the American economy were small businesses who could go get loans. That entrepreneur who has been the lifeblood of our economy can't go to a bank today to get that new loan because of compliance requirements. They are the people who create those new jobs.

And on top of that, you have the burden of the obligations of Obamacare. In small business, what are they doing? They are cutting jobs so they don't have to comply.

What will grow your economy, what will create the jobs that you earnestly want, is an open market where companies can grow and not have this intense regulatory environment, whether it is through monetary accommodative policy or through onerous regulatory environments placed upon them. So I want to encourage you with that reality, that we can find that type of opportunity economy.

I would say to you, Chair Yellen, that the regulatory rulebook—it has been in a constant state of revision for the last 6 years. Can

you see the benefit, then, as a result of what we discussed, in pausing this process in order to assess the cumulative impact that these regulations are having on the economy before we proceed further?

Mrs. YELLEN. We have several regulations that we intend to put out during this coming year. And in terms of the list of what was mandated by Dodd-Frank, we have made substantial progress.

Mr. PITTINGER. Consider that outcome. We are saying that we think it needs to be done.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair wishes to remind Members that we expect to excuse the witness as close to 1:00 p.m. as possible. The Chair anticipates getting through perhaps four more Members.

The Chair now recognizes the gentleman from the Super Bowl champion Denver Broncos, Mr. Perlmutter.

Mr. PERLMUTTER. Thanks, Mr. Chairman.

And, Chair Yellen, thank you, as always, for being here today. I was going to go a little off topic with my first question, to say, how about those Broncos, but—

Mrs. YELLEN. Way to go.

Mr. PERLMUTTER. —the Chair already beat me to the punch.

But I do want to talk about the overall conversation today, and I want to thank you and I want to thank the Federal Reserve. I want to start with the chart that we have on the board, which shows what happened at the end of the Bush Administration, when we went to 10 percent unemployment, and under Obama, we are down to less than half of that.

Okay? So that is your chart number two in your monetary report. And all the Republicans don't want to let the facts get in the way of their rhetoric because then chart number four shows that after some time—and that is on page five, Chair—wages are beginning to move up after we started getting people back into the job market.

Chart six, oil prices way down. Chart seven, inflation even. Chart 13, wealth-to-income—disposable income up “a robust 3.5 percent.” Chart 15, household debt service, way down. Chart 20, mortgage rates, down. Figure one on page 37, unemployment down looking at the long-term, and core price inflation, even.

Those are your charts. Those are the facts.

Now, have wages gone up as much as we would like to see? No. But we had to get a lot of people back working. Now, we are starting to see them move.

So the Chair went through a whole list of economists, because obviously he didn't have a lot of questions; he wanted to list a lot of names. And there were a couple of guys there with the Hoover Institute.

So Herbert Hoover, grand old Republican President who led us into the Great Depression. Not the kind of economy I would like to see, all right?

George Bush, we go from 5 percent unemployment to 10 percent unemployment. We lose millions of jobs.

Under Barack Obama, back down to 4.9 percent. In Colorado, we are at 3.5 percent.

So I just want to thank you, and I want to thank the Administration for getting this economy back on track.

Now, can we do better? You bet.

So how would you suggest that we do better? How can this economy get moving so that the folks here can see some real growth in wages, which I think are beginning to appear, but what would you suggest?

Mrs. YELLEN. Our objective in terms of what we can do is to try to make sure that the picture that you have put up here shows continuing improvement in the labor market.

I agree with you, I would say the signs of wage growth increasing—they are tentative at this point. There are some hopeful signs, but I think if the labor market continues to progress we are very hopeful we will see faster progress on wages.

And we will try to keep that progress going. That is our objective. Inflation is running under our 2-percent objective. I expect that will move up over time, as well, with appropriate policy.

But I appreciate your saying that some of the burden should also be on Congress and others, because there are so many problems in the labor market and particular groups—we have talked a lot about African-Americans and the problems they face.

The Fed, of course, has a role to play, but job training, educational programs, programs that address other barriers in the labor market, I think this is Congress' job to address.

Productivity growth is very low. I think Congress has always had a role in supporting basic research, making sure that the infrastructure of our country is adequate and putting in place programs that make sure that training and education are widely available.

Mr. PERLMUTTER. All right. Let me move to a soft spot that I think exists in the economy, and you and I have talked about it before, and that is on oil and gas and the fact that the Saudi Arabians are pumping like crazy into what appears to be an over-supplied market, causing the price to drop a lot, which in some ways is very good for all of us because saves us \$10, \$15, \$20 a week or a month in our price at the pump.

But it also is causing some job losses in the manufacturing sectors, the oil and gas, obviously, transportation. Can you comment on what the Fed is doing or reviewing when it comes to oil and gas production?

Mrs. YELLEN. We are taking account, as you said, of the fact that the energy sector is very hard-hit. We are losing jobs there. But with respect to employment, it is—although there really are very severe losses, it is a pretty small sector of the workforce overall.

We are seeing massive cutbacks in drilling activity, and that is rippling through to manufacturing generally, where output is depressed. So, it is having negative consequences.

On the other hand, if you look at the difference in oil prices now relative to 2014, for the average American household, we are looking at a savings of \$1,000 a year.

And that is boosting consumer spending. And we have these two: a negative force, positive forces. We are trying to factor all of that in as—

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from Illinois, Mr. Hultgren.

Mr. HULTGREN. Thank you, Mr. Chairman.

Thank you, Chair Yellen, so much, for being with us today.

As you may know, the Financial Crimes Enforcement Network, or FinCEN, is in the process of finalizing some new requirements to prevent terrorism financing and money laundering under its beneficial ownership rules.

While I fully support efforts to curb terrorism financing, it seems the application of FinCEN's rule to certain non-bank subsidiaries, such as premium finance companies, may not be appropriate.

I understand that my staff is already talking with the Fed about this issue, but wondered if I could get a commitment from you today about trying to find clarification for if these rules apply to premium finance companies that are subsidiaries of banks?

Mrs. YELLEN. We would be happy to work with you on that.

Mr. HULTGREN. Thank you so much.

When you testified before the committee back on November 4th of 2015, we discussed the impact of the supplementary leverage ratio on custody banks. At that time, you described it as a kind of backup ratio that works as a backup to risk-based capital standards.

When responding to questions from Congressman Rothfus earlier today, you stated that, "When the supplementary leverage ratio becomes effective, that it will likely become the binding capital requirement for some custody banks."

I understand some of these custody banks already feel they must discourage customer cash deposits. As you know, these institutions have highly liquid, low-risk balance sheets that support client needs. In light of this concern, will the Fed consider adjusting the capital requirements for excess cash deposits held with the Federal Reserve?

Mrs. YELLEN. I am not sure if they will become the—if the supplementary leverage ratio will become the binding constraint or not. I didn't intend to say that it is the binding constraint. There will also be so-called SIFI capital surcharges that will come into effect that may make those binding constraint.

This is a matter that I understand what the issue is. We can look at it and discuss it. It was debated at the time. There were considerations on both sides and a decision was made to include Fed deposits.

It is something we can look at, but it was considered.

Mr. HULTGREN. I hope we are able to discuss that and also look and see if it is necessary for us to have congressional intervention, as far as legislation, to change the rule.

Let me move on. I am pleased by the news that the Federal Reserve has been engaged with the insurance industry on capital roles appropriate for the business of insurance.

What are your thoughts on how that process is proceeding, and when might we suspect to see proposed rules from the Federal Reserve released for public comment?

Mrs. YELLEN. We are working very hard on that. I don't have an exact timetable but we are expecting to go out with, for each of the firms, a notice of proposed rulemaking, so the public can react to these rules. The staff is fairly far along in developing these, so my hope is that it won't be too much longer.

We have worked hard to have the appropriate interactions with the firms and other regulators to do this right.

Mr. HULTGREN. I appreciate your work on that. From Illinois, insurance is important. We have some wonderful companies there, but I know they have questions, and I appreciate the iteration and hopefully the resolution relatively quickly.

One last question: Will the Federal Reserve issue one proposed capital rule for all insurers it supervises? And if you could explain why or why not?

Mrs. YELLEN. I am not positive. I think for the particular SIFIs that have been designated—Prudential, AIG, and MetLife—they are likely to be firm-specific rules, but I am not positive. Let me get back to you on that.

Mr. HULTGREN. That would be great. Thank you. Thanks, Chair Yellen.

Mr. Chairman, I have an additional minute. I would yield that back to the Chairman, if the Chairman wants it. Otherwise, I yield back.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the gentleman from Minnesota, Mr. Ellison.

Mr. ELLISON. Thank you, Mr. Chairman, and Ranking Member Waters.

As we start out, I also want to thank some of the folks who have joined us for the hearing today. My good friend, Ron Harris, is here from Minneapolis.

It's good to see you, Ron.

And I just want to let you know that this active citizenship of coming to these hearings, watching things, is exactly what is needed in order for this government to function properly. In my view, this is what democracy looks like.

Thank you all for being here.

Chair Yellen, let me point your attention to the words of Mr. Narayana Kocherlakota, who was a former Minneapolis Fed chair, outgoing President of the Federal Reserve Bank in Minneapolis. On Martin Luther King Day, he wrote a blog and here is what he said in part: "There is one key source of economic difference in American life that is likely underemphasized in the FOMC deliberations—race."

He went on to say that for the year—he went on to say that he searched through the transcripts of the FOMC meetings for the year 2010, his first year on the committee, and a dire year for African-Americans in our labor market, and in that year our total unemployment rate exceeded 9.25 percent every quarter, but for African-Americans, it exceeded 15.5 percent.

Today, now, White unemployment in Minnesota is 2.9 percent as of December 2015, but Black unemployment is 14.1 percent. And in Minneapolis, overall White unemployment is 4 percent, but Black unemployment is a shocking 18.9 percent.

So I say that because this is something that I think needs the attention of the Chair. I don't know what constraints you believe are out there, but race matters when it comes to how people experience our economy.

And if we don't discuss it, talk about it, then we won't ever get to the heart of the matter as to how to fix it to make equal justice for all.

I will quote one Kocherlakota one more time. He said, "As we all know too well, race matters. The average African-American's experience with the U.S. economy is different from that of the average White person's."

So, my question is, what do you make of the commentary from the previous Minneapolis Fed president? In your view, is there adequate discussion, attention of the economic situation of African-American workers within FOMC deliberations?

And if there is not—and I suspect you will say there is not—what can we do about it? How can we at least focus the committee's attention on this segment of our fellow Americans?

Mrs. YELLEN. It is, of course, important that we look at different groups, and particularly those who are suffering the most in the labor market. And I am surprised that there was no specific mention of race.

In 2010, the unemployment rate was substantially higher than it was. The committee was very focused at the time on what we could do to promote a stronger labor market. And I suppose because our tools are not ones that can be targeted at particular groups in the labor market, it was clear what we needed to do, and that was to support a stronger labor market more generally.

Mr. ELLISON. But, Chair Yellen, forgive me for the interruption. I definitely think that—I get that part. But I would rather talk prospectively, because the past is what happened and there is no changing it.

How can the Fed Chair get the FOMC to say, "Wait a minute, not all Americans, particularly African-Americans, are experiencing this upsurge in economic activity?"

For Black Americans, we are still in the midst of a very serious depression-recession. What can we do about it, and what—and again, I am not here to say—to wag my finger about what happened. We know what happened and it wasn't right. But in terms of what is happening now and what can happen, what can you tell me?

Mrs. YELLEN. I think you are right that we should pay adequate attention to how different groups are faring in the labor market. We have made clear that we don't focus on any single statistic, that the unemployment rate is only one measure of what is happening in the labor market, and it is appropriate for us to really try to do a much more detailed assessment of where things stand and what we should be aiming for.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair anticipates calling upon two more Members, Mr. Barr and Mr. Delaney, and then excusing the witness.

The Chair now recognizes the gentleman from Kentucky, Mr. Barr.

Mr. BARR. Thank you, Mr. Chairman.

And, Chair Yellen, thanks for being back before us.

The last time you were here, we talked about a qualified CLO concept, and you were kind enough to respond to that question in writing. I want to thank you for that, and I want to particularly

thank you for recognizing that the qualified CLO concept could be considered a positive development in the market.

And I would like to continue our discussion about the role that regulation could very well play in terms of being a source of economic instability, particularly in our capital markets.

The Basel Committee recently finished a rule in January that increases the capital held against securitization exposures in a bank trading book by up to 5 times the amount already required under Basel III, as well as the final TLAC rules.

One industry study suggests that trading in U.S. asset-backed securities will become uneconomical if the rule is not tailored to fit the U.S. marketplace.

If it is uneconomical to act as a market-maker for commercial mortgage-backed securities or residential mortgage-backed securities, auto loans, credit cards, collateralized loan obligations, then banks will pull out of the ABS market, which represents a \$1.6 billion source of consumer lending, or 30 percent of all lending to U.S. consumers.

So my question to you, Chair Yellen, is how will the Fed ensure that the final rule will be tailored to fit the U.S. market, which is the most liquid ABS market in the entire world?

Mrs. YELLEN. I will have a careful look at that. I am not familiar with all of the details of the Basel proposal.

But anything we implement in the United States—there is nothing automatic that is implemented in the United States, and we will have a careful look at what the impact would be.

Mr. BARR. I appreciate you doing that. And I continue to urge the Fed, and you in particular, as a member of FSOC, to look at government regulation as a source of economic instability.

To that end, we are told by many of the regulated bank holding companies that there is no updated organizational chart within the Fed. And so my question would be, can you share with us—or can your staff share with us—a detailed organizational chart with the names and titles of the Bank Supervision and Regulation Division's full professional staff?

Mrs. YELLEN. I think so.

Mr. BARR. I am told that whatever organizational chart you have is very dated, and so—

Mrs. YELLEN. Yes—

Mr. BARR. —we can't even—many of the folks can't even ask you questions.

Mrs. YELLEN. —yes. I don't see any reason we can't—

Mr. BARR. I appreciate you doing that.

Switching gears really quickly to the Consumer Financial Protection Bureau and their funding source, which, as you know, according to the budget overview that the Bureau makes public, transfers from the Federal Reserve System are capped at \$618 million for Fiscal Year 2015, and the transfer cap is estimated to be \$631 million for Fiscal Year 2016.

Given that my time is scarce, if you could just answer the following in yes-or-no responses, that would be greatly appreciated. Does the Fed approve the Bureau's budget?

Mrs. YELLEN. We fund the Bureau's budget.

Mr. BARR. You fund it, but do you approve the budget?

Mrs. YELLEN. I think the answer is no, but—

Mr. BARR. Right. Can you veto specific allocations requested? No.

Mrs. YELLEN. I don't think so.

Mr. BARR. Okay. And does the Fed have protocols if the bureau seeks to transfer more than the cap on its transfers under the formula? Do you have a protocol in place to prevent that?

Mrs. YELLEN. We abide by the law. I need to look at the details of what our obligations and limits are. I need to look at that more fully.

Mr. BARR. We would like to know if the—

Mrs. YELLEN. But we certainly have protocols to abide by what Congress set out.

Mr. BARR. This is the problem we have is that we don't have appropriations control over the Bureau. And so, they get their funding from you. We would hope that they would at least be accountable to you as the funding source.

Is there any direct oversight of the implementation of the Bureau's budget by the Fed?

Mrs. YELLEN. No. Our Inspector General has authority both for the Fed and the Bureau, but the Fed does not have authority over the budget and spending of the—

Mr. BARR. Thank you. In my last 10 seconds, you have talked a little bit about the need for Congress to address our long-term debt and deficit crisis. This seems to me a five-alarm fire.

Given that mandatory spending is 70 percent of the Federal budget, why isn't the Fed more aggressively warning Congress that it must reform mandatory entitlement spending?

Mrs. YELLEN. Every Fed Chair that I can remember has come and told Congress that this is a looming problem with serious economic consequences. I know my predecessor has; I have on many occasions; and I certainly remember that Chairman Greenspan discussed with Congress the importance of addressing this.

Mr. BARR. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Maryland, Mr. Delaney.

Mr. DELANEY. Thank you, Mr. Chairman.

And I want to thank you, Chair Yellen, for not only your leadership in general, but also your participation and patience at this hearing.

I also want to welcome our visitors and guests here today and thank you for bringing your important message.

We do talk about how our unemployment rate has gone down substantially, which it has—below 5 percent now. But we all know that when you get behind those numbers there are really only two types of jobs being created right now in this country: high-skilled, high-paid jobs, where you need very, very specific skills and advanced educations to get them; and low-skilled, low-paid jobs.

And what we are not creating is middle-skilled, middle-class jobs, the kind of jobs that have been the backbone of this country for a long time and allowed wages to grow and people to raise their families with one job.

The Chair touched on something very important, which is infrastructure, because there is nothing we can do as a country to help address that problem more than rebuilding our country.

So if I could ever edit your T-shirts I would say, "Let our wages grow, rebuild our country," because I do think it would really make a difference in raising wages.

But my question for the Chair is—and again, thank you for your patience—in December, when the decision was made to raise the Federal fund rates, in your testimony you said that was in part based on a view that economic activity would continue to expand at a moderate pace and labor market indicators would continue to strengthen.

And certainly, based on the top-line data from 2015 and 2014, where we saw decent GDP growth, improvement in the residential market, business investments at a decent level—not where we would like them, but at a decent level—increases in R&D investments, et cetera, but even when you take into consideration the negatives from the oil and gas sector, the outlook for economic growth was reasonably solid, and the labor market data that you were looking at, at the time, must have been good because the January numbers were actually encouraging, not only in terms of unemployment but some of the wage data, as you talked about.

So I guess my question is, a lot has happened since that decision in the markets, and that tends to change behavior. When you look at the same data you looked at when you made that decision in December, if you look at that data now, does it change your view as to your perspective on economic activity, economic growth, and general labor market trends?

Mrs. YELLEN. I think the answer is "maybe," but the jury is out. We have continued to see progress in the labor market. Over the last 3 months, there have been 230,000 jobs per month, averaging through.

GDP growth clearly slowed a lot in the fourth quarter. My expectation is that it will pick up this quarter.

But on the other hand, financial conditions have tightened considerably, and that can have implications for the outlook.

And what the Committee said in January—we had previously said that we regarded the risks to the outlook for economic activity and the labor market as balanced.

Mr. DELANEY. Right.

Mrs. YELLEN. What we said in January is that we are evaluating and assessing the impact of these developments on the outlook for both the labor market and activity for inflation and the balance of risks. And that is what we are doing at this point.

Mr. DELANEY. And when you look, Chair Yellen, at recent data that you get better than anyone about credit formation and borrowing activities in the markets, are you concerned that there has been a significant contraction in credit availability based on recent market activities? And how much does that factor in to your—

Mrs. YELLEN. That is an important factor.

Mr. DELANEY. And have you seen it?

Mrs. YELLEN. Not really at this stage. But what we do see is that spreads, especially on lower-graded bonds, have widened considerably. Borrowing rates have widened.

Mr. DELANEY. What about bank lending?

Mrs. YELLEN. And it is not just energy. In our most recent survey of banks on their lending standards, we have seen a tightening that is reported in C&I loans, in CRE loans, and that certainly those loans continue to grow but that is something that bears watching. It is really those kinds of trends that we need to evaluate—

Mr. DELANEY. And very quickly, as you weigh your decisions, obviously inflation and labor-market participation are critical, overall, the economic activity is critical. This subcomponent, in other words, what is happening with credit availability—how important is that in your decision-making process?

Mrs. YELLEN. What we are trying to do is forecast spending in the economy. Investment spending and housing are two important forms of spending. And credit availability factors into our forecast for both of those portions of the economy. They are not the only factors that matter, but they are a factor that is important, and so we will be considering those.

And there are a number of weeks before we meet again in March. There is quite a bit of additional data we will want to look at. But you have pinpointed exactly the kinds of considerations that will bear on our thinking.

Mr. DELANEY. Thank you again.

Chairman HENSARLING. The time of the gentleman has expired.

The ranking member is recognized for a unanimous consent request.

Ms. WATERS. I ask unanimous consent to insert into the record the statement from Financial Innovation Now (FIN) that highlights the very important work the Federal Reserve Board is doing through the Faster Payments Task Force, of which FIN is a member.

Chairman HENSARLING. Without objection, it is so ordered.

Chair Yellen, I thank you for your testimony today.

The Chair notes that some Members may have additional questions for this witness, which they may wish to submit in writing. Without objection, the hearing record will remain open for 5 legislative days for Members to submit written questions to this witness and to place her responses in the record. Also, without objection, Members will have 5 legislative days to submit extraneous materials to the Chair for inclusion in the record.

I ask Chair Yellen to please respond promptly.

This hearing stands adjourned.

[Whereupon, at 1:12 p.m., the hearing was adjourned.]

A P P E N D I X

February 10, 2016

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Statement by

Janet L. Yellen

Chair

Board of Governors of the Federal Reserve System

before the

Committee on Financial Services

U.S. House of Representatives

February 10, 2016

Chairman Hensarling, Ranking Member Waters, and other members of the Committee, I am pleased to present the Federal Reserve's semiannual *Monetary Policy Report* to the Congress. In my remarks today, I will discuss the current economic situation and outlook before turning to monetary policy.

Current Economic Situation and Outlook

Since my appearance before this Committee last July, the economy has made further progress toward the Federal Reserve's objective of maximum employment. And while inflation is expected to remain low in the near term, in part because of the further declines in energy prices, the Federal Open Market Committee (FOMC) expects that inflation will rise to its 2 percent objective over the medium term.

In the labor market, the number of nonfarm payroll jobs rose 2.7 million in 2015, and posted a further gain of 150,000 in January of this year. The cumulative increase in employment since its trough in early 2010, is now more than 13 million jobs. Meanwhile, the unemployment rate fell to 4.9 percent in January, 0.8 percentage point below its level a year ago and in line with the median of FOMC participants' most recent estimates of its longer-run normal level. Other measures of labor market conditions have also shown solid improvement, with noticeable declines over the past year in the number of individuals who want and are available to work but have not actively searched recently, and in the number of people who are working part time but would rather work full time. However, these measures remain above the levels seen prior to the recession, suggesting that some slack in labor markets remains. Thus, while labor market conditions have improved substantially, there is still room for further sustainable improvement.

The strong gains in the job market last year were accompanied by a continued moderate expansion in economic activity. U.S. real gross domestic product is estimated to have increased

about 1-3/4 percent in 2015. Over the course of the year, subdued foreign growth and the appreciation of the dollar restrained net exports. In the fourth quarter of last year, growth in the gross domestic product is reported to have slowed more sharply, to an annual rate of just 3/4 percent; again, growth was held back by weak net exports as well as by a negative contribution from inventory investment. Although private domestic final demand appears to have slowed somewhat in the fourth quarter, it has continued to advance. Household spending has been supported by steady job gains and solid growth in real disposable income--aided in part by the declines in oil prices. One area of particular strength has been purchases of cars and light trucks; sales of these vehicles in 2015, reached their highest level ever. In the drilling and mining sector, lower oil prices have caused companies to slash jobs and sharply cut capital outlays, but in most other sectors, business investment rose over the second half of last year. And homebuilding activity has continued to move up, on balance, although the level of new construction remains well below the longer-run levels implied by demographic trends.

Financial conditions in the United States have recently become less supportive of growth, with declines in broad measures of equity prices, higher borrowing rates for riskier borrowers, and a further appreciation of the dollar. These developments, if they prove persistent, could weigh on the outlook for economic activity and the labor market, although declines in longer-term interest rates and oil prices provide some offset. Still, ongoing employment gains and faster wage growth should support the growth of real incomes and therefore consumer spending, and global economic growth should pick up over time, supported by highly accommodative monetary policies abroad. Against this backdrop, the Committee expects that with gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace in coming years and that labor market indicators will continue to strengthen.

As is always the case, the economic outlook is uncertain. Foreign economic developments, in particular, pose risks to U.S. economic growth. Most notably, although recent economic indicators do not suggest a sharp slowdown in Chinese growth, declines in the foreign exchange value of the renminbi have intensified uncertainty about China's exchange rate policy and the prospects for its economy. This uncertainty led to increased volatility in global financial markets and, against the background of persistent weakness abroad, exacerbated concerns about the outlook for global growth. These growth concerns, along with strong supply conditions and high inventories, contributed to the recent fall in the prices of oil and other commodities. In turn, low commodity prices could trigger financial stresses in commodity-exporting economies, particularly in vulnerable emerging market economies, and for commodity-producing firms in many countries. Should any of these downside risks materialize, foreign activity and demand for U.S. exports could weaken and financial market conditions could tighten further.

Of course, economic growth could also exceed our projections for a number of reasons, including the possibility that low oil prices will boost U.S. economic growth more than we expect. At present, the Committee is closely monitoring global economic and financial developments, as well as assessing their implications for the labor market and inflation and the balance of risks to the outlook.

As I noted earlier, inflation continues to run below the Committee's 2 percent objective. Overall consumer prices, as measured by the price index for personal consumption expenditures, increased just 1/2 percent over the 12 months of 2015. To a large extent, the low average pace of inflation last year can be traced to the earlier steep declines in oil prices and in the prices of other imported goods. And, given the recent further declines in the prices of oil and other commodities, as well as the further appreciation of the dollar, the Committee expects inflation to

remain low in the near term. However, once oil and import prices stop falling, the downward pressure on domestic inflation from those sources should wane, and as the labor market strengthens further, inflation is expected to rise gradually to 2 percent over the medium term. In light of the current shortfall of inflation from 2 percent, the Committee is carefully monitoring actual and expected progress toward its inflation goal.

Of course, inflation expectations play an important role in the inflation process, and the Committee's confidence in the inflation outlook depends importantly on the degree to which longer-run inflation expectations remain well anchored. It is worth noting, in this regard, that market-based measures of inflation compensation have moved down to historically low levels; our analysis suggests that changes in risk and liquidity premiums over the past year and a half contributed significantly to these declines. Some survey measures of longer-run inflation expectations are also at the low end of their recent ranges; overall, however, they have been reasonably stable.

Monetary Policy

Turning to monetary policy, the FOMC conducts policy to promote maximum employment and price stability, as required by our statutory mandate from the Congress. Last March, the Committee stated that it would be appropriate to raise the target range for the federal funds rate when it had seen further improvement in the labor market and was reasonably confident that inflation would move back to its 2 percent objective over the medium term. In December, the Committee judged that these two criteria had been satisfied and decided to raise the target range for the federal funds rate 1/4 percentage point, to between 1/4 and 1/2 percent. This increase marked the end of a seven-year period during which the federal funds rate was held near zero. The Committee did not adjust the target range in January.

The decision in December to raise the federal funds rate reflected the Committee's assessment that, even after a modest reduction in policy accommodation, economic activity would continue to expand at a moderate pace and labor market indicators would continue to strengthen. Although inflation was running below the Committee's longer-run objective, the FOMC judged that much of the softness in inflation was attributable to transitory factors that are likely to abate over time, and that diminishing slack in labor and product markets would help move inflation toward 2 percent. In addition, the Committee recognized that it takes time for monetary policy actions to affect economic conditions. If the FOMC delayed the start of policy normalization for too long, it might have to tighten policy relatively abruptly in the future to keep the economy from overheating and inflation from significantly overshooting its objective. Such an abrupt tightening could increase the risk of pushing the economy into recession.

It is important to note that even after this increase, the stance of monetary policy remains accommodative. The FOMC anticipates that economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate. In addition, the Committee expects that the federal funds rate is likely to remain, for some time, below the levels that are expected to prevail in the longer run. This expectation is consistent with the view that the neutral nominal federal funds rate--defined as the value of the federal funds rate that would be neither expansionary nor contractionary if the economy was operating near potential--is currently low by historical standards and is likely to rise only gradually over time. The low level of the neutral federal funds rate may be partially attributable to a range of persistent economic headwinds--such as limited access to credit for some borrowers, weak growth abroad, and a significant appreciation of the dollar--that have weighed on aggregate demand.

Of course, monetary policy is by no means on a preset course. The actual path of the federal funds rate will depend on what incoming data tell us about the economic outlook, and we will regularly reassess what level of the federal funds rate is consistent with achieving and maintaining maximum employment and 2 percent inflation. In doing so, we will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. In particular, stronger growth or a more rapid increase in inflation than the Committee currently anticipates would suggest that the neutral federal funds rate was rising more quickly than expected, making it appropriate to raise the federal funds rate more quickly as well. Conversely, if the economy were to disappoint, a lower path of the federal funds rate would be appropriate. We are committed to our dual objectives, and we will adjust policy as appropriate to foster financial conditions consistent with the attainment of our objectives over time.

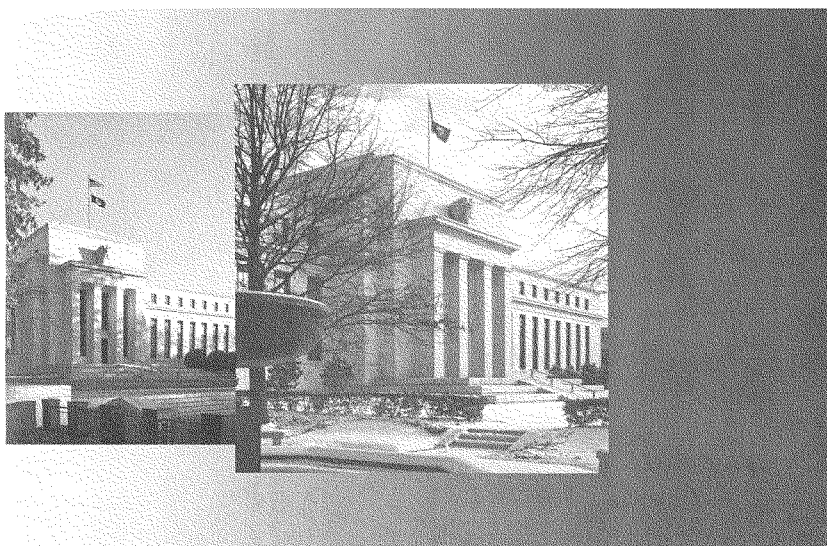
Consistent with its previous communications, the Federal Reserve used interest on excess reserves (IOER) and overnight reverse repurchase (RRP) operations to move the federal funds rate into the new target range. The adjustment to the IOER rate has been particularly important in raising the federal funds rate and short-term interest rates more generally in an environment of abundant bank reserves. Meanwhile, overnight RRP operations complement the IOER rate by establishing a soft floor on money market interest rates. The IOER rate and the overnight RRP operations allowed the FOMC to control the federal funds rate effectively without having to first shrink its balance sheet by selling a large part of its holdings of longer-term securities. The Committee judged that removing monetary policy accommodation by the traditional approach of raising short-term interest rates is preferable to selling longer-term assets because such sales could be difficult to calibrate and could generate unexpected financial market reactions.

The Committee is continuing its policy of reinvesting proceeds from maturing Treasury securities and principal payments from agency debt and mortgage-backed securities. As highlighted in the December statement, the FOMC anticipates continuing this policy “until normalization of the level of the federal funds rate is well under way.” Maintaining our sizable holdings of longer-term securities should help maintain accommodative financial conditions and reduce the risk that we might need to return the federal funds rate target to the effective lower bound in response to future adverse shocks.

Thank you. I would be pleased to take your questions.

MONETARY POLICY REPORT

February 10, 2016



Board of Governors of the Federal Reserve System

LETTER OF TRANSMITTAL



BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM

Washington, D.C., February 10, 2016

THE PRESIDENT OF THE SENATE
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its *Monetary Policy Report* pursuant to section 2B of the Federal Reserve Act.

Sincerely,

A handwritten signature in cursive script, reading "Janet L. Yellen", is positioned below the word "Sincerely,".

Janet L. Yellen, Chair

STATEMENT ON LONGER-RUN GOALS AND MONETARY POLICY STRATEGY

Adopted effective January 24, 2012; as amended effective January 26, 2016

The Federal Open Market Committee (FOMC) is firmly committed to fulfilling its statutory mandate from the Congress of promoting maximum employment, stable prices, and moderate long-term interest rates. The Committee seeks to explain its monetary policy decisions to the public as clearly as possible. Such clarity facilitates well-informed decisionmaking by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.

Inflation, employment, and long-term interest rates fluctuate over time in response to economic and financial disturbances. Moreover, monetary policy actions tend to influence economic activity and prices with a lag. Therefore, the Committee's policy decisions reflect its longer-run goals, its medium-term outlook, and its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals.

The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee reaffirms its judgment that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate. The Committee would be concerned if inflation were running persistently above or below this objective. Communicating this symmetric inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances. The maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market. These factors may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment; rather, the Committee's policy decisions must be informed by assessments of the maximum level of employment, recognizing that such assessments are necessarily uncertain and subject to revision. The Committee considers a wide range of indicators in making these assessments. Information about Committee participants' estimates of the longer-run normal rates of output growth and unemployment is published four times per year in the FOMC's Summary of Economic Projections. For example, in the most recent projections, the median of FOMC participants' estimates of the longer-run normal rate of unemployment was 4.9 percent.

In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.

The Committee intends to reaffirm these principles and to make adjustments as appropriate at its annual organizational meeting each January.

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NOTE: Unless stated otherwise, the time series in the figures extend through, for daily data, February 4, 2016; for monthly data, January 2016; and, for quarterly data, 2015:Q4. In bar charts, except as noted, the change for a given period is measured to its final quarter from the final quarter of the preceding period.

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SUMMARY

Labor market conditions continued to improve during the second half of 2015 and into early 2016. Payroll employment has increased at a solid average pace of 225,000 per month since June. The unemployment rate, which had reached a high of 10 percent in late 2009, declined from 5.3 percent last June to 4.9 percent in January. Although the unemployment rate now equals the median of Federal Open Market Committee (FOMC) participants' estimates of its longer-run normal level, other considerations suggest that some further improvement in labor market conditions is needed to achieve the Committee's maximum employment mandate. The labor force participation rate remains somewhat below most assessments of its trend, and an unusually large number of people continue to work part time when they would prefer full-time employment.

Inflation remains below the FOMC's longer-run goal of 2 percent: The price index for personal consumption expenditures (PCE) rose only $\frac{1}{2}$ percent over the 12 months ending in December. The PCE price index excluding food and energy items, which often provides a better indication of future inflation, also remained subdued, rising $1\frac{1}{2}$ percent over that period. Inflation has been held down substantially by the drop in energy prices; declines in the prices of non-oil imported goods have contributed as well. Meanwhile, survey-based measures of longer-run inflation expectations have drifted down a little since the middle of last year and generally stand near the lower ends of their historical ranges; market-based measures of inflation compensation have fallen and are at low levels.

Real gross domestic product (GDP) is reported to have increased at an annual rate of about $1\frac{1}{4}$ percent over the second half of the year, slower than the first-half pace. The expansion in economic activity reflected continued increases in private domestic final

demand, supported by ongoing job gains and accommodative monetary policy. Government purchases rose modestly. By contrast, the rise in the foreign exchange value of the dollar over the past year and a half and the sluggish pace of economic activity abroad have continued to weigh on exports. In addition, the pace of inventory accumulation slowed markedly from its elevated first-half pace, thereby reducing overall GDP growth in the second half of 2015.

Domestic financial conditions have become somewhat less supportive of economic growth since mid-2015. Recent months have been marked by bouts of turbulence in financial markets that largely reflected concerns about the global economic outlook and developments in oil markets. Broad measures of U.S. equity prices have declined, on net, roughly returning these indexes to levels that prevailed during the first half of 2014. And the dollar has strengthened further, on balance, since the summer of 2015. Corporate risk spreads have widened, particularly for lower-rated issuers. Nonetheless, interest rates for investment-grade issuers are generally still low, reflecting declines in yields on longer-term Treasury securities. Moreover, although debt issuance by lower-rated firms has slowed, credit flows to nonfinancial businesses have remained solid since the middle of last year, supported by continued strong bond issuance of higher-rated firms and by bank lending. Household access to credit was mixed, with mortgages and credit cards still difficult to access for some borrowers while student and auto loans remained broadly available, even to borrowers with lower credit scores. Overall, debt growth in the household sector has remained modest and continues to be concentrated among borrowers with strong credit histories.

The U.S. financial system overall has been resilient to the stresses that have emerged since mid-2015, and financial vulnerabilities

remain moderate. Regulatory capital ratios and holdings of liquid assets at large banking firms are at historically high levels. Usage of short-term wholesale funding in the financial system is relatively low, and the use of leverage to finance securities purchases has declined somewhat. The ratio of aggregate private nonfinancial credit to GDP is below most estimates of its long-run trend, although leverage of speculative-grade nonfinancial corporations has risen further since the middle of last year and is relatively high. Risk premiums for many asset classes have increased. For instance, the rise in spreads on corporate debt has been larger than would be expected given the evolution of expected defaults. The direct exposures of the largest U.S. banking firms to the oil sector and to emerging market economies are limited. If conditions in those sectors worsen, however, wider stresses could emerge and be transmitted to the United States through indirect global financial linkages.

In December, after holding the federal funds rate near zero for seven years, the FOMC raised the target range for that rate to $\frac{1}{4}$ to $\frac{1}{2}$ percent. The decision to increase the federal funds rate reflected the Committee's assessment that there had been considerable improvement in the labor market last year and that the Committee was reasonably confident that inflation would move back to 2 percent over the medium term; thus, the criteria set out by the Committee in March 2015 had been met.

The Committee anticipates that economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate. This expectation is consistent with the view that the neutral nominal federal funds rate—defined as the value of the federal funds rate that would be neither expansionary nor contractionary if the economy was operating at its productive potential—is currently low by historical standards and is likely to rise only

gradually over time, as headwinds to economic growth dissipate slowly and as inflation rises toward the Committee's goal of 2 percent. Consistent with this outlook, in the most recent Summary of Economic Projections (SEP), which was compiled at the time of the December FOMC meeting, FOMC participants projected that the appropriate level of the federal funds rate would be below its longer-run level through 2018. (The December SEP is included as Part 3 of this report.)

With respect to its securities holdings, the Committee will continue to reinvest principal payments from its securities portfolio, and it expects to maintain this reinvestment policy until normalization of the level of the federal funds rate is well under way. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.

The Committee has emphasized that the actual path of monetary policy will depend on how incoming data affect the economic outlook. In determining the timing and size of future adjustments to the target range of the federal funds rate, the Committee will assess realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. Stronger growth or a more rapid increase in inflation than the Committee currently anticipates would likely call for faster increases in the federal funds rate; conversely, if conditions prove weaker, a lower path of the federal funds rate would likely be appropriate.

To move the federal funds rate into the new target range announced in December, the Federal Reserve raised the rate of interest paid on required and excess reserve balances and also employed an overnight reverse repurchase agreement facility. The effective federal funds rate was moved successfully into the increased target range. The FOMC remains confident that it has the tools it needs to adjust short-term interest rates as appropriate.

PART 1

RECENT ECONOMIC AND FINANCIAL DEVELOPMENTS

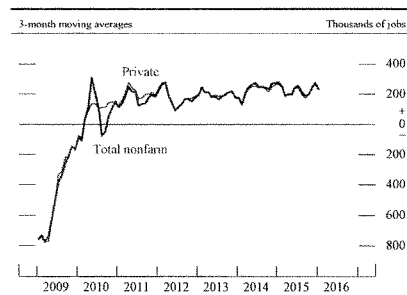
The labor market continued to improve during the second half of last year and early this year. Payroll employment has increased 225,000 per month, on average, since June. The unemployment rate fell from 5.3 percent in June to 4.9 percent in January and thus has reached the median estimate among Federal Open Market Committee (FOMC) participants of the level of unemployment that is considered to be normal in the longer run. Even so, the relatively low labor force participation rate and the unusually large number of people working part time who would prefer full-time employment suggest that some cyclical weakness is still present in the labor market. Since mid-2014, a steep drop in crude oil prices has exerted significant downward pressure on overall inflation, and declines in the prices of non-oil imported goods have held down inflation as well. The price index for personal consumption expenditures (PCE) increased only ½ percent during the 12 months ending in December, a rate that is well below the FOMC's longer-run objective of 2 percent; the index excluding food and energy prices rose 1½ percent over the same period. Both survey- and market-based measures of inflation expectations have moved down since June. Meanwhile, real gross domestic product (GDP) increased at an annual rate of 1¼ percent over the second half of 2015, slower than in the first half. The growth in GDP has been supported by accommodative monetary policy, favorable consumer confidence, and the boost to household purchasing power from lower oil prices. However, lower oil prices have also exerted downward pressure on domestic investment in the energy sector. In addition, sluggish growth abroad and the higher foreign exchange value of the dollar have weighed on exports, and financial conditions more generally have become somewhat less supportive of economic growth. Concerns about economic conditions abroad and the energy sector have contributed to lower equity prices and higher borrowing rates for some businesses.

Domestic Developments

The labor market has continued to improve . . .

Labor market conditions strengthened further across a variety of dimensions over the second half of 2015 and early this year. Payroll employment gains remained robust, averaging about 235,000 per month over the second half of last year, similar to the gains over the first half; factoring in the January increase of about 150,000, monthly gains since June have averaged about 225,000 (figure 1). The increase in 2015 followed an even faster pace of job gains in 2014, and, in total, some 5¼ million jobs were added over the two years. In addition, the unemployment rate—which had reached 10 percent in late 2009—declined from 5.3 percent in June 2015 to 4.9 percent in January of this year; this level is ¾ percentage point lower than a year earlier and is equal to

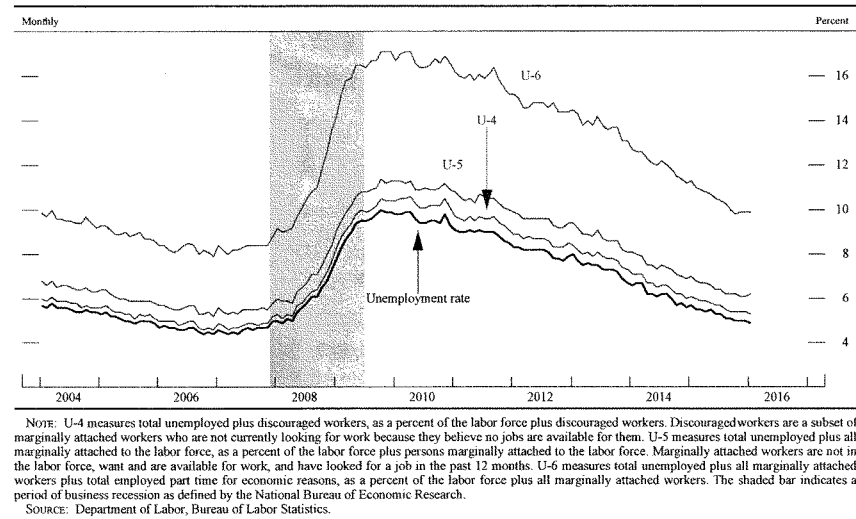
1. Net change in payroll employment



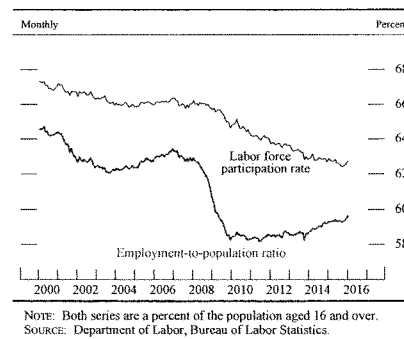
SOURCE: Department of Labor, Bureau of Labor Statistics.

4 PART 1: RECENT ECONOMIC AND FINANCIAL DEVELOPMENTS

2. Measures of labor underutilization



3. Labor force participation rate and employment-to-population ratio



the median of FOMC participants' estimates of its longer-run normal level (figure 2).

Broader measures of labor underutilization, such as those including individuals who are classified as marginally attached to the labor force, declined by similar amounts. (A “marginally attached” individual is defined as someone who is not looking for work currently and therefore treated as not in the labor force, but who wants and is available for work and has looked for a job in the past 12 months.)

... though some labor market slack likely remains ...

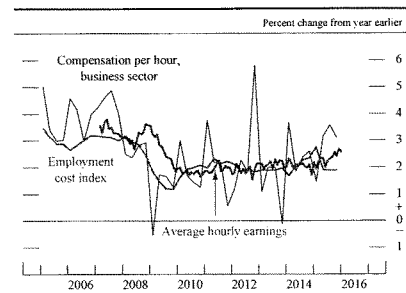
While payroll employment and the unemployment rate have improved further since mid-2015, the labor force participation rate fell from an average of 62.7 percent of the working-age population during the second quarter of 2015 to 62.5 percent in the fourth quarter; the participation rate moved back up to 62.7 percent in January (figure 3). Changing demographics—most notably the increasing

share of older people in the population, who are less likely to be in the labor force—and other longer-run structural changes in the labor market have continued to push down the participation rate even as cyclical forces have been pushing it up. That said, labor force participation appears to remain a little weaker than can be explained by structural factors alone, pointing to the likelihood that some slack remains in this dimension of labor utilization. In addition, although the share of workers who are employed part time but would like to work full time has fallen noticeably since June, it is still relatively high, indicating some scope for improvement on this dimension as well.

. . . while labor compensation has shown some tentative signs of accelerating . . .

As the labor market has continued to improve, the rates of increase in some measures of hourly labor compensation have begun to pick up while others remain relatively subdued. For example, average hourly earnings for all employees increased 2½ percent over the 12 months ending in January, above the 2 percent pace seen throughout most of the recovery (figure 4). In addition, compensation per hour in the business sector—a volatile measure derived from the labor compensation data in the national income and product accounts, or NIPA—is reported to have increased more quickly in 2015 than its average pace throughout most of the recovery. In contrast, the employment cost index for private industry workers, which measures both wages and the cost to employers of providing benefits, increased about 2 percent over the 12 months ending in December, similar to the pace seen throughout most of the recovery. All of these measures of compensation are increasing at slower rates than those seen prior to the recession. This deceleration probably reflects a variety of factors, including the slower growth of productivity, the slower pace of inflation, and perhaps some remaining slack in the labor market. Despite the continued relatively small increases in nominal wages, the recent very low inflation led to a noticeably

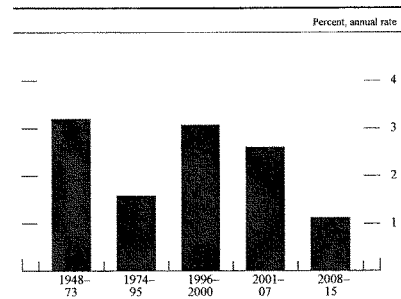
4. Measures of change in hourly compensation



NOTE: The average hourly earnings data series begins in March 2007 and extends through January 2016. The compensation per hour and employment cost index data extend through 2015:Q4. For business-sector compensation, change is over four quarters; for the employment cost index, change is over the 12 months ending in the last month of each quarter; for average hourly earnings, change is from 12 months earlier.

SOURCE: Department of Labor, Bureau of Labor Statistics.

5. Change in business sector output per hour



NOTE: Changes are measured from Q4 of the year immediately preceding the period through Q4 of the final year of the period.
SOURCE: Department of Labor, Bureau of Labor Statistics.

larger wage gain last year on a purchasing-power-adjusted (or so-called real) basis than had been evident earlier in the expansion.

... and productivity growth has been lackluster

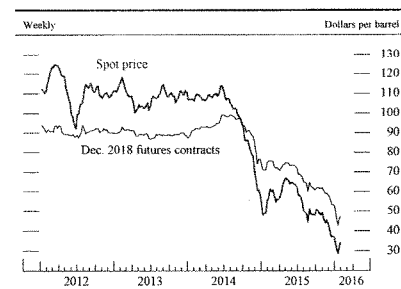
Over time, increases in productivity are a key determinant of the rise in real wages and living standards. Labor productivity in the business sector increased at an annual rate of just ½ percent in 2015 and at an average annual rate of just 1 percent since the last business cycle peak in 2007 (figure 5). The average pace since 2007 is a little below the 1974–95 average and well below the pace during the period from the mid-1990s to 2007. The reasons behind the slower productivity performance in recent years are not well understood, but one factor seems to be the slower pace of capital accumulation.

Falling oil prices continue to hold down overall consumer prices . . .

Consumer price increases have remained muted and below the FOMC's longer-run objective of 2 percent. As discussed in the box "Effects of Movements in Oil Prices and the Dollar on Inflation," crude oil prices have plummeted since June 2014, and the dollar has moved appreciably higher; both factors have contributed importantly to the low inflation readings of the past year.

Since July, the price of crude oil has fallen appreciably further, on net, with the spot price of Brent crude oil dropping below \$35 per barrel, a level last seen more than a decade ago (the blue line in figure 6). Futures prices have also dropped significantly and indicate that market participants expect only modest price increases over the next few years. Although concerns about global growth have contributed to the fall in prices, much of the recent decline can be attributed to the abundance of global supply. Reductions in U.S. production have been slower and smaller than expected, and OPEC has abandoned its official production target in favor of maintaining robust production despite declining prices and the

6. Brent spot and futures prices



NOTE: The data are weekly averages of daily data and extend through February 4, 2016.
SOURCE: NYMEX.

likely increase in Iranian oil exports in the coming months. The drop in crude oil prices continues to pass through to gasoline prices: The national average of retail gasoline prices (on a seasonally adjusted basis) moved down from more than \$2.50 per gallon in June to about \$2.00 per gallon in January.

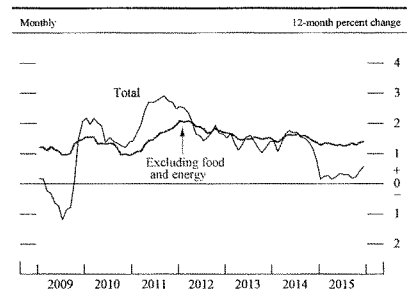
Largely because of the decline in energy prices, overall consumer price inflation, as measured by the PCE price index, was running at just $\frac{1}{4}$ percent for the 12 months ending in June 2015; the 12-month change remained near that pace until year-end, when it edged up to $\frac{1}{2}$ percent as some of the sharpest declines from a year earlier fell out of the 12-month calculation (figure 7).

Food prices were little changed over the past six months after edging down during the first half of 2015. Consumer food prices were held down in 2015 by falling food commodity prices, but futures markets suggest that these commodity prices will flatten out, implying that this source of downward pressure on consumer food price inflation is likely to wane.

... but even outside of the energy and food categories, inflation has remained subdued

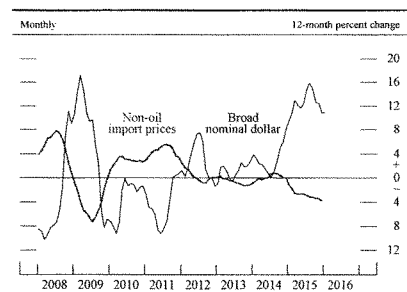
As is also discussed in the box “Effects of Movements in Oil Prices and the Dollar on Inflation,” another important factor holding down inflation has been the behavior of import prices. After declining sharply in the first half of 2015, non-oil import prices continued to fall in the second half, albeit at a slightly more modest pace; the further declines in the second half reflected lower commodity prices as well as additional increases in the foreign exchange value of the dollar (figure 8). In addition, slack in labor and product markets likely placed downward pressure on inflation, although this factor has probably waned significantly. For all of these reasons, inflation for items other than food and energy (so-called core inflation) remained modest. Core PCE prices rose about $1\frac{1}{2}$ percent over the 12 months ending in December, similar to the increase in 2014.

7. Change in the price index for personal consumption expenditures



NOTE: The data extend through December 2015; changes are from one year earlier.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

8. Non-oil import prices and U.S. dollar exchange rate



NOTE: The data for non-oil import prices extend through December 2015.
SOURCE: Department of Labor, Bureau of Labor Statistics; Federal Reserve Board, Statistical Release H.10, “Foreign Exchange Rates.”

Effects of Movements in Oil Prices and the Dollar on Inflation

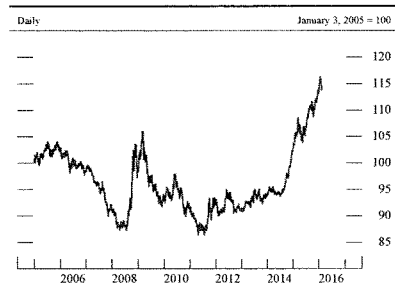
Over the past year, inflation has continued to run well below the Federal Open Market Committee's longer-run objective of 2 percent (text figure 7). The 12-month change in the personal consumption expenditures (PCE) price index, which was about $\frac{1}{2}$ percent in 2015, was held down most clearly by falling prices for oil and farm commodities. Falling prices for other commodities and the rise in the foreign exchange value of the dollar have also contributed importantly to continued low rates of inflation. Indeed, reflecting these influences, inflation for items other than food and energy remained relatively low, with core PCE price inflation at slightly under $\frac{1}{2}$ percent last year.

Since the middle of 2014, crude oil prices have tumbled, with the spot price of the global benchmark Brent crude oil falling from over \$115 per barrel to under \$35 per barrel in recent weeks; prices for a wide variety of other commodities have also declined considerably. The pass-through of falling oil prices into lower gasoline prices is typically relatively rapid, and the drop in consumer energy prices held down overall PCE inflation directly by more than $\frac{1}{2}$ percentage point in 2015. Falling farm commodity prices also reduced consumer food price inflation over the past year, although the pass-through of these commodity price changes into overall PCE inflation tends to be somewhat smaller and more gradual than with oil prices. Additionally, the sustained reduction in both oil and non-oil commodity prices has likely lowered core inflation somewhat by holding down firms' production and distribution costs. Empirical estimates of the pass-through of energy costs into core inflation are generally quite small, with long and variable lags. Nonetheless, even with a small degree of pass-through, the very large

declines in energy prices since the middle of 2014 have likely been holding down core consumer price inflation somewhat.

The broad dollar has appreciated more than 20 percent since the middle of 2014, reflecting both heightened concerns about the global outlook, which have resulted in safe-haven flows toward dollar assets, and diverging expectations regarding domestic and foreign monetary policy (figure A). A stronger dollar makes foreign goods cheaper for U.S. consumers. An extensive literature, however, has found that the pass-through of exchange rate changes to U.S. import prices is incomplete—that is, less than proportionate—as foreign exporters prefer to absorb part of the exchange rate change by narrowing profit margins. For example, a typical estimate is that a 10 percent appreciation

A. U.S. dollar exchange rate: Broad nominal dollar



SOURCE: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

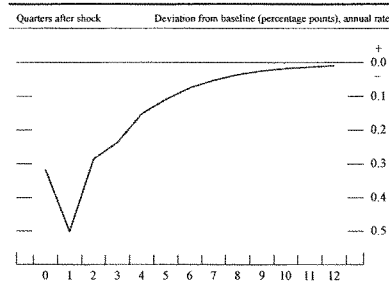
of the dollar causes the prices of non-oil imported goods to decline about 3 percent after one year.¹ Roughly one-third of this effect occurs through the effect on imported commodities, as an increase in the value of the dollar tends to lower commodity prices proportionately.

Because imported goods and services make up only a modest share of U.S. consumption, a given percentage decline in import prices causes a much smaller percentage reduction in core PCE prices. Figure B uses a simple econometric model to illustrate how a 10 percent appreciation of the dollar might affect core PCE inflation through this channel.² According to this model, core PCE inflation dips in the two quarters following the appreciation before gradually returning to the baseline, leading to a four-quarter decline in core PCE inflation of about $\frac{1}{4}$ percentage point relative to the baseline in the first year following the shock. Given the size of the dollar's appreciation since the middle of 2014, this model suggests that falling import prices depressed core PCE inflation about $\frac{1}{2}$ percentage point last year. Although the exact magnitude of the dollar's effect on inflation depends on the specific model used,

this exercise suggests that the stronger dollar has played a material role in holding down PCE inflation.

Although further declines in energy prices or a further rise in the exchange value of the dollar are certainly possible, those movements will eventually stop. As these prices stabilize, the drag on consumer price inflation from oil and import prices will dissipate. Moreover, with margins of resource utilization having already diminished appreciably and longer-run inflation expectations reasonably stable, both core and overall inflation are likely to rise gradually toward 2 percent over the medium term as these transitory factors fade and the labor market improves further.

B. Effect of 10 percent appreciation on core PCE inflation



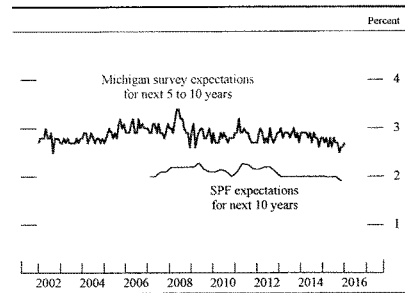
NOTE: The x-axis represents the quarters following the 10 percent appreciation shock.

SOURCE: Federal Reserve Board staff calculations based on an econometric model described in the appendix to Janet L. Yellen (2015), "Inflation Dynamics and Monetary Policy," speech delivered at the Philip Gamble Memorial Lecture, University of Massachusetts, Amherst, Mass., September 24, www.federalreserve.gov/newsevents/speech/yellen20150924a.htm.

1. For more detail, see Joseph Gruber, Andrew McCallum, and Robert J. Vigfusson (2016), "The Dollar in the U.S. International Transactions (USIT) Model," IFDP Notes (Washington: Board of Governors of the Federal Reserve System, February 8), www.federalreserve.gov/conresdata/notes/ifdp-notes/2016/the-dollar-in-the-us-international-transactions-model-20160208.html.

2. This model was discussed in a recent speech by Chair Yellen and is described in its appendix. See Janet L. Yellen (2015), "Inflation Dynamics and Monetary Policy," speech delivered at the Philip Gamble Memorial Lecture, University of Massachusetts, Amherst, Mass., September 24, www.federalreserve.gov/newsevents/speech/yellen20150924a.htm.

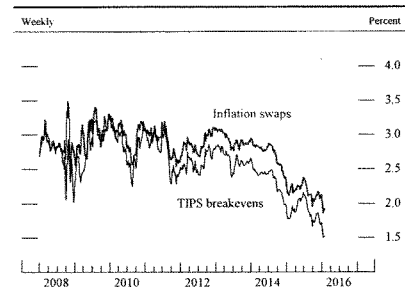
9. Median inflation expectations



NOTE: The Michigan survey data are monthly. The SPF data for inflation expectations for personal consumption expenditures are quarterly and extend from 2007:Q1 through 2015:Q4.

SOURCE: University of Michigan Surveys of Consumers; Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters (SPF).

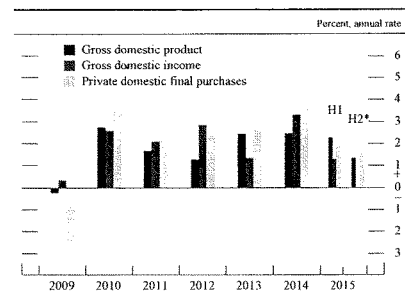
10. 5-to-10-year-forward inflation compensation



NOTE: The data are weekly averages of daily data and extend through February 3, 2016, for inflation swaps, and February 4, 2016, for TIPS breakevens. TIPS is Treasury Inflation-Protected Securities.

SOURCE: Federal Reserve Bank of New York; Barclays, Federal Reserve Board staff estimates.

11. Change in real gross domestic product, gross domestic income, and private domestic final purchases



* Gross domestic income is not yet available for 2015:H2.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

Survey- and market-based measures of inflation expectations have moved down since June

Wage- and price-setting decisions are likely influenced by expectations for inflation. Survey measures of longer-term inflation expectations have been quite stable over the past 15 years but appear to have moved down some lately, including over the past 6 months, to the lower end of their historical ranges. This decline has occurred both for the measure of inflation expectations over the next 5 to 10 years as reported in the University of Michigan Surveys of Consumers and for the median expectation for the annual rate of increase in the PCE price index over the next 10 years from the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia (figure 9). Market-based measures of medium- (5-year) and longer-term (5-to-10-year-ahead) inflation compensation derived from the difference between yields on nominal Treasury securities and Treasury Inflation-Protected Securities moved down further, on net, over the second half of the year after having declined notably between mid-2014 and mid-2015 (figure 10). Although changes in inflation compensation could reflect changes in expected inflation, they also may reflect a variety of other considerations, including an inflation risk premium, liquidity premiums, and other factors.¹

Economic activity expanded at a moderate pace in the second half of 2015

Real GDP is reported to have increased at an annual rate of 1¼ percent in the second half of last year, slower than the first-half pace (figure 11). As in the first half of the year, economic activity during the second half was supported by solid gains in private

1. For further discussion of inferring inflation expectations from market-based measures, see the box “Challenges in Interpreting Measures of Longer-Term Inflation Expectations” in Board of Governors of the Federal Reserve System (2015), *Monetary Policy Report* (Washington: Board of Governors, February), www.federalreserve.gov/monetarypolicy/mpm_20150224_part1.htm.

domestic final purchases—that is, final purchases by households and businesses—and by modest increases in government purchases of goods and services. By contrast, aggregate demand continued to be held down by weak export performance, reflecting the rise in the foreign exchange value of the dollar and sluggish foreign economic growth. In addition, inventory investment slowed markedly from its elevated first-half pace, thereby reducing overall GDP growth in the second half of 2015.

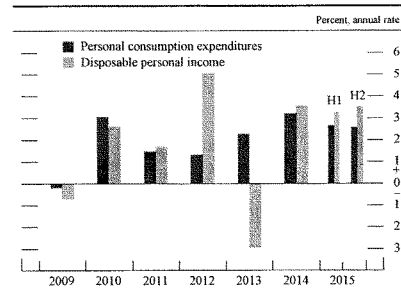
Gains in income and wealth are supporting consumer spending . . .

Real personal consumption expenditures rose at an annual rate of 2½ percent in the second half of 2015, about the same as the first-half pace (figure 12). These increases have been supported by income gains from the improving labor market as well as the fall in gasoline and other energy prices, which has bolstered consumers' purchasing power. As a result, real disposable income—that is, income after taxes and adjusted for price changes—rose a robust 3½ percent in 2015 after a similar gain in 2014.

Consumer spending last year was also likely supported by further increases in household net worth. Although the value of corporate equities edged down last year, prices of houses—which are owned much more widely than are corporate equities—posted significant gains, and the wealth-to-income ratio remained elevated relative to its historical average (figure 13). In nominal terms, national house price indexes are now close to their peaks of the mid-2000s, but relative to rents, house price valuations are much lower than a decade ago (figure 14).

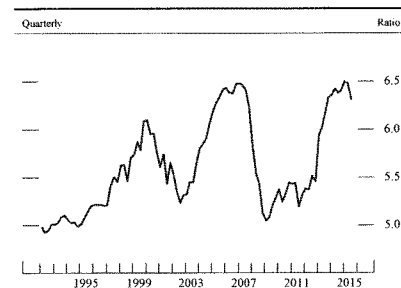
Coupled with low interest rates, the rise in incomes has lowered debt payment burdens for many households. The household debt service burden—the ratio of required principal and interest payments on outstanding household debt to disposable income, measured for the household sector as a whole—has remained at a very low level by historical standards

12. Change in real personal consumption expenditures and disposable personal income



SOURCE: Department of Commerce, Bureau of Economic Analysis.

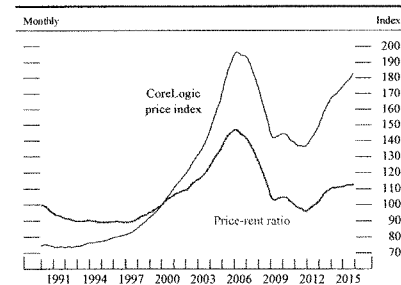
13. Wealth-to-income ratio



NOTE: The data extend through 2015:Q3. The series is the ratio of household net worth to disposable personal income.

SOURCE: For net worth, Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States"; for income, Department of Commerce, Bureau of Economic Analysis.

14. Nominal house prices and price-rent ratio

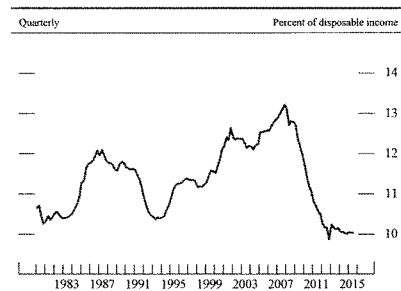


NOTE: The data extend through December 2015. The CoreLogic price index is seasonally adjusted by Federal Reserve Board staff. The price-rent ratio is the ratio of nominal house prices to the consumer price index of rent of primary residence. The data are indexed to 100 in January 2000.

SOURCE: For prices, CoreLogic; for rents, Department of Labor, Bureau of Labor Statistics.

12 PART 1: RECENT ECONOMIC AND FINANCIAL DEVELOPMENTS

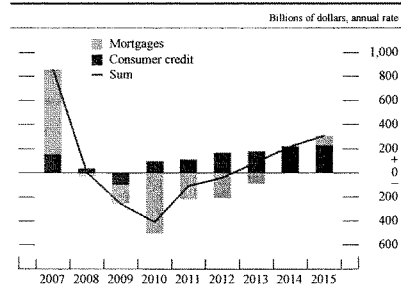
15. Household debt service



NOTE: The data extend through 2015:Q3. Debt service payments consist of estimated required payments on outstanding mortgage and consumer debt.

SOURCE: Federal Reserve Board, Statistical Release, "Household Debt Service and Financial Obligations Ratios."

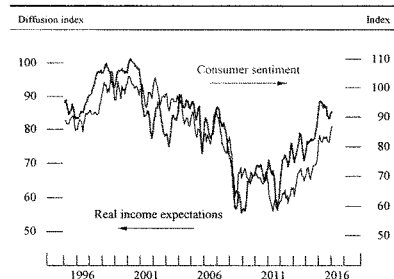
16. Changes in household debt



NOTE: Changes are calculated from year-end to year-end, except 2015 changes, which are calculated from Q3 to Q3.

SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

17. Indexes of consumer sentiment and income expectations



NOTE: The data are three-month moving averages and extend through January 2016. Consumer sentiment is indexed to 100 in 1966. Real income expectations are calculated as the net percent of survey respondents expecting family income to go up more than prices during the next year or two.

SOURCE: University of Michigan Surveys of Consumers.

(figure 15). As interest rates rise, the debt burden will move up only gradually, as most household debt is in fixed-interest products.

... as is credit availability

Consumer credit continued to expand moderately through late 2015, as lending standards for both auto lending and student loans remained accommodative (figure 16). In addition, credit card lending has been rebounding since early last year. Standards and terms on credit cards are still relatively tight for riskier borrowers, although there has been some modest increase in access for borrowers with subprime credit histories. Delinquencies on credit card and auto loans are still near historical lows, in part due to the tight standards.

Consumer confidence remains high

Household spending has also been supported by favorable consumer sentiment. For the past year or so, the overall index of consumer sentiment from the University of Michigan Surveys of Consumers has registered levels comparable to those that prevailed before the recession (figure 17). Rising real incomes, partly driven by falling energy prices and improvements in the labor market, have likely driven up consumer confidence. These same factors are probably behind the more upbeat expectations that households report for real income changes over the next year or two, which are now near pre-recession levels.

Residential construction has improved modestly

The gradual recovery in residential construction activity continued over the second half of last year. Both single- and multifamily housing starts registered moderate increases in 2015 (figure 18). Sales of new and existing homes also rose moderately, abstracting from the temporary plunge in existing home sales in November, which reportedly reflected a lengthening in closing times due to new mortgage disclosure rules (figure 19). But while multifamily starts have recovered to their

pre-recession level, single-family construction continues to be well below its earlier pace. The level of housing starts is still being held down by a meager pace of household formation, tighter-than-average mortgage credit supply, and shortages of skilled labor and other inputs in the construction sector.

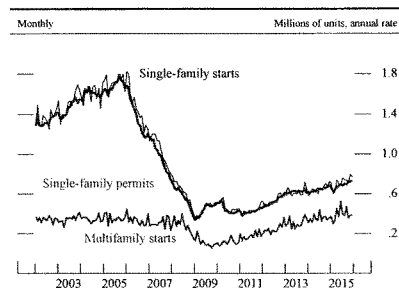
Although the October 2015 and January 2016 Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS) reports suggest that a gradual easing of bank lending standards has continued over the past six months, mortgage credit is still difficult to access for borrowers with low credit scores, undocumented income, or high debt-to-income ratios.² For borrowers who can obtain credit, interest rates on mortgages remain near their historical lows, although they inched up, on net, over the second half of the year (figure 20). In 2015, outstanding mortgage debt rose for the first time since the recession as mortgage originations for home purchases increased and write-downs of mortgage debt continued to ebb.

Overall business investment has slowed as a result of a sharp drop in investment in the energy sector

Business investment (private nonresidential fixed investment) rose at an annual rate of only ½ percent during the second half of 2015 after increasing at a 3 percent pace during the first half of the year (figure 21). Spending on equipment rose modestly, and a bit faster than during the first half of 2015, but spending on intangibles, such as research and development, and investment in structures outside of drilling and mining flattened out after posting strong gains during the first half of the year. Investment in structures used in the energy sector continued to fall precipitously, as the drop in oil prices has scuttled investment in higher-cost oil and gas wells. For the year as a whole, the pace of overall business investment

2. The SLOOS is available on the Board's website at www.federalreserve.gov/boarddocs/sloansurvey.

18. Private housing starts and permits



NOTE: The data extend through December 2015.

SOURCE: Department of Commerce, Bureau of the Census.

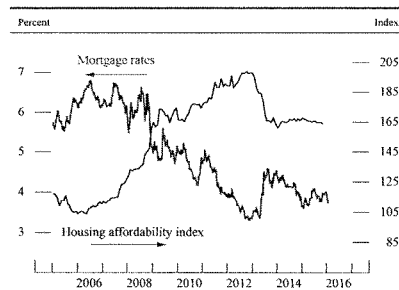
19. New and existing home sales



NOTE: The data extend through December 2015. "Existing home sales" includes single-family, condo, townhome, and co-op sales.

SOURCE: For new single-family home sales, Census Bureau; for existing home sales, National Association of Realtors.

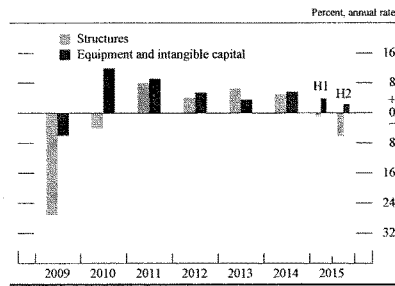
20. Mortgage rates and housing affordability



NOTE: The housing affordability index data are monthly through November 2015 and the mortgage rate data are weekly through February 3, 2016. At an index value of 100, a median-income family has exactly enough income to qualify for a median-priced home mortgage. Housing affordability is seasonally adjusted by Board staff.

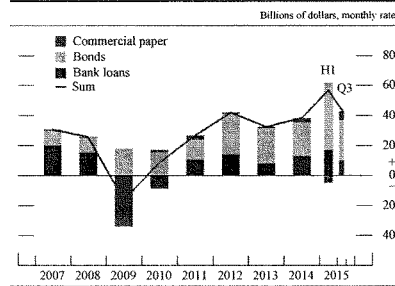
SOURCE: For housing affordability index, National Association of Realtors; for mortgage rates, Freddie Mac Primary Mortgage Market Survey.

21. Change in real private nonresidential fixed investment

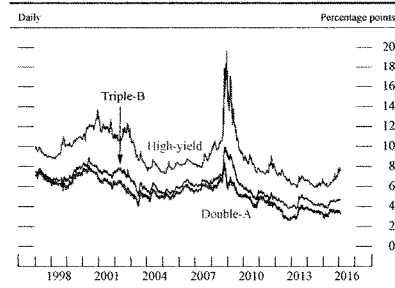


SOURCE: Department of Commerce, Bureau of Economic Analysis.

22. Selected components of net financing for nonfinancial businesses

NOTE: The data for the components except bonds are seasonally adjusted.
SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

23. Corporate bond yields, by securities rating

NOTE: The yields shown are yields on 10-year bonds.
SOURCE: BofA Merrill Lynch Global Research, used with permission

slowed compared with 2014, mostly as a result of the drop in the energy sector. Investment has been supported by low interest rates and financing conditions that are still generally accommodative, though somewhat less so than earlier.

Corporate financing conditions have become somewhat less supportive

Domestic financial conditions for nonfinancial firms have become somewhat less supportive of growth since last June, particularly for non-investment-grade firms. Equity prices have declined and bond spreads have widened amid concerns about the global economic outlook and oil prices. Downgrades of bonds issued by nonfinancial companies have increased, and the leverage of these companies is near the top end of its range over the past few decades. Nonetheless, profitability has remained high outside the energy sector. Against a backdrop of low interest rates, investment-grade nonfinancial businesses have continued to raise substantial amounts of funds in bond and loan markets since last June, in part to finance mergers and acquisitions activity (figure 22). Speculative-grade bond issuance also was solid for much of 2015 but diminished toward the end of the year as spreads widened notably, particularly for firms in the energy sector (figure 23).

Loan demand remained strong across most major categories through the end of 2015. Of note, demand for commercial real estate (CRE) loans strengthened further and issuance of commercial mortgage-backed securities (CMBS) remained robust. Credit conditions tightened for this sector as concerns about credit quality led to wider spreads on CMBS and, according to the results of the October and January SLOOS reports, a moderate number of banks had tightened lending standards for CRE loans, particularly for construction and land development. A modest fraction of banks also reported having tightened lending standards for commercial and industrial loans to firms of all sizes since the second quarter.

The drag from federal fiscal policy has ended . . .

After being a drag on aggregate demand during much of the expansion, federal fiscal policy has shifted to a more neutral stance as fiscal consolidation efforts have abated. During 2015, policy actions had little effect on taxes and transfers, and real federal purchases of goods and services edged up (figure 24).

The federal budget deficit narrowed further in fiscal year 2015 to 2½ percent of GDP, largely reflecting the increase in tax receipts owing to the ongoing economic expansion as well as the modest increase in purchases (figure 25). A deficit of this size is small enough to stabilize the ratio of the debt held by the public to nominal GDP; that said, the current level of that ratio is elevated relative to its average over the post–World War II period (figure 26). The Congressional Budget Office projects the deficit to move up to about 3 percent of GDP in fiscal 2016.

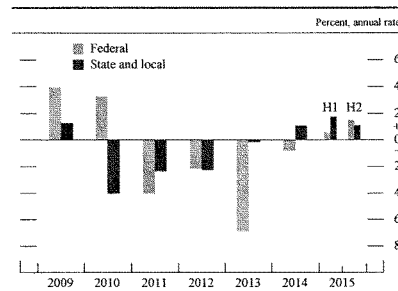
. . . and state and local government expenditures are rising moderately

Fiscal conditions of most state and local governments continue to improve gradually. Tax revenues have been rising moderately, supported by the expansion of economic activity and increasing house prices. These governments boosted spending at a moderate rate in 2015. In particular, real state and local purchases of goods and services rose 1½ percent last year, as employment posted another modest gain and real construction spending rose markedly for the first time since the recession (figure 27).

In contrast, net exports still held down growth in gross domestic product slightly

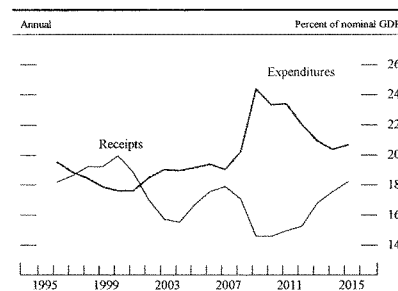
Exports held about flat in the second half of 2015, weighed down by the appreciation of the dollar and by soft foreign economic growth (figure 28). Although the stronger dollar made imports more affordable, import growth was also relatively subdued. Imports for inputs related to oil exploration and production

24. Change in real government expenditures on consumption and investment



SOURCE: Department of Commerce, Bureau of Economic Analysis.

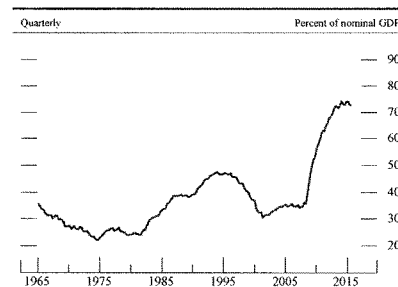
25. Federal receipts and expenditures



NOTE: The receipts and expenditures data are on a unified-budget basis and are for fiscal years (October through September); gross domestic product (GDP) data are for the four quarters ending in Q3.

SOURCE: Office of Management and Budget.

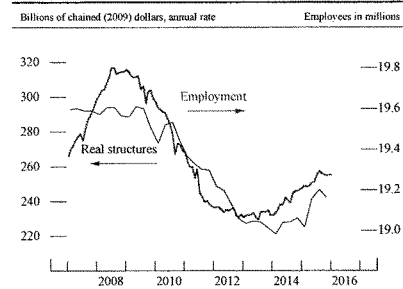
26. Federal government debt held by the public



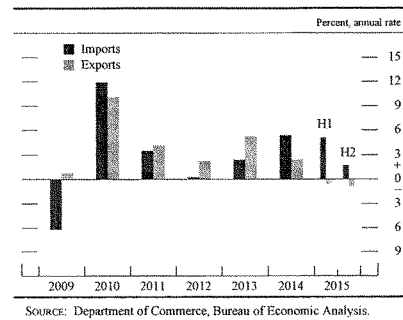
NOTE: The data extend through 2015:Q3. The data for gross domestic product (GDP) are at an annual rate. Federal debt held by the public equals federal debt less Treasury securities held in federal employee defined benefit retirement accounts, evaluated at the end of the quarter.

SOURCE: For GDP, Department of Commerce, Bureau of Economic Analysis; for federal debt, Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

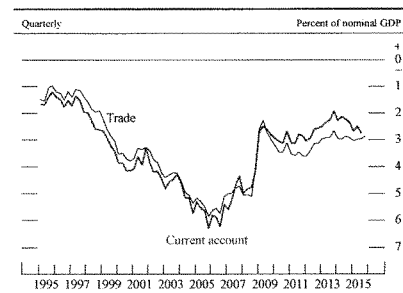
27. State and local employment and structures investment



28. Change in real imports and exports of goods and services



29. U.S. trade and current account balances



were particularly weak, consistent with steep declines in that industry. In all, real net trade continued to be a drag on real GDP growth in the second half of 2015. Although the real trade balance deteriorated, the nominal trade balance was little changed in 2015 in part because the value of imports declined, largely because of the decline in oil prices. Still, the current account deficit widened a bit to near 3 percent of nominal GDP as U.S. net investment income declined (figure 29).

*Financial Developments***The expected path for the federal funds rate over the next several years declined**

Despite further strengthening in labor market conditions and a range of other indicators that market participants viewed as consistent with continued expansion in the U.S. economy, market-based measures of the expected path of the federal funds rate over the next several years have moved down, on balance, since the middle of last year. Contributing to this shift were concerns about the foreign economic outlook and global disinflationary pressures, as well as Federal Reserve communications anticipating that economic conditions will warrant only gradual increases in the federal funds rate. Survey-based measures of the expected path of policy also moved down. According to the results of the most recent Survey of Primary Dealers, conducted by the Federal Reserve Bank of New York just prior to the January FOMC meeting, respondents' expectations for the federal funds rate target at the end of this year and next year were lower than those reported last June. Market-based measures of uncertainty about the policy rate approximately one to two years ahead declined, on balance, from their mid-2015 levels.

Longer-term Treasury yields decreased

Yields on longer-term nominal Treasury securities have declined since the middle of last year on net (figure 30). The decreases in nominal yields largely reflected reductions

in inflation compensation; yields on long-term inflation-protected Treasury securities were little changed. Participants in the U.S. Treasury market reportedly were particularly attentive to developments abroad, especially turbulence in Chinese financial markets, and to fluctuations in oil prices. Consistent with the changes in yields on Treasury securities, yields on 30-year agency mortgage-backed securities (MBS)—an important determinant of mortgage interest rates—decreased, on balance, over the second half of 2015 and early 2016 (figure 31).

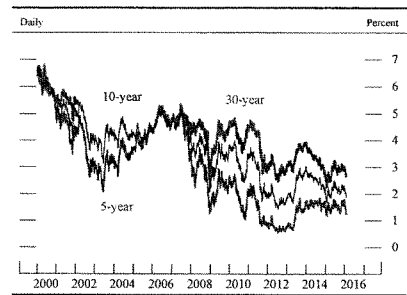
Broad equity price indexes decreased . . .

Since the middle of last year, amid considerable volatility, broad measures of U.S. equity prices have decreased notably, on net, as concerns about the foreign economic outlook appeared to weigh on risk sentiment and the outlook for corporate earnings growth (figure 32). Stock prices for companies in the energy and basic materials sectors dropped sharply, reflecting the continued fall in oil and other commodity prices. Implied volatility for the overall S&P 500 index, as calculated from options prices, increased, on balance, since the middle of last year; at times, its movement was notable.

. . . and risk spreads on speculative-grade corporate bonds moved up substantially, particularly for firms in the energy sector

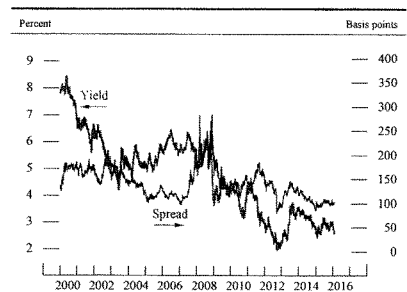
Credit spreads in the corporate sector have widened across the credit spectrum. The spread of yields on investment-grade corporate bonds to yields on Treasury securities of comparable maturity rose moderately, and credit spreads on speculative-grade bonds widened substantially. Spreads for firms in the energy sector increased particularly sharply, reflecting the further drops in the price of oil since late June. Mutual funds investing in speculative-grade bonds experienced significant outflows over the second half of 2015 and early 2016, and, in December, redemptions from one such fund were suspended. During the second half of last year, the respondents

30. Yields on nominal Treasury securities



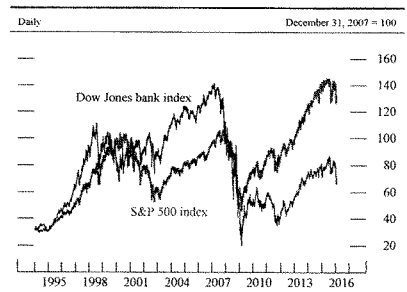
NOTE: The Treasury ceased publication of the 30-year constant maturity series on February 18, 2002, and resumed that series on February 9, 2006.
SOURCE: Department of the Treasury.

31. Yield and spread on agency mortgage-backed securities



NOTE: The data are daily. Yield shown is for the Fannie Mae 30-year current coupon, the coupon rate at which new mortgage-backed securities would be priced at par, or face, value. Spread shown is to the average of the 5- and 10-year nominal Treasury yields.
SOURCE: Department of the Treasury; Barclays.

32. Equity prices



NOTE: For Dow Jones Indices licensing information, see the note on the Contents page.
SOURCE: The Dow Jones Bank Index and the S&P 500 Index are a product of S&P Dow Jones Indices LLC and/or its affiliates.

to the Senior Credit Officer Opinion Survey on Dealer Financing Terms reported a moderate deterioration in liquidity and market functioning in speculative-grade corporate bonds and some tightening of the terms under which dealers were willing to provide financing to clients against such bonds.³ In addition, some metrics of corporate bond market liquidity suggest a slight deterioration over the second half of 2015 and early 2016, though most indicators remain at levels comparable with those seen prior to the crisis. For further discussion of corporate bond markets and other financial stability issues, see the box “Developments Related to Financial Stability.”

Short-term funding markets continued to function well

Short-term dollar funding markets have functioned smoothly during the second half of 2015 and early 2016. Markets for unsecured offshore dollar funding and repurchase agreements, or repos, generally did not exhibit signs of stress. Year-end funding pressures were modest.

Money market participants continued to focus on the Federal Reserve’s use of its monetary policy tools. These tools proved effective in raising the federal funds rate following the FOMC’s decision to increase the target range in December, while other money market rates also moved up broadly in line with the increase in the federal funds target range. For a detailed discussion, see the box “Monetary Policy Implementation following the December 2015 FOMC Meeting” in Part 2.

Treasury market functioning and liquidity conditions in the mortgage-backed securities market were generally stable

Indicators of Treasury market functioning have remained broadly stable over the second half of 2015 and early 2016. A variety of

3. More information on the Senior Credit Officer Opinion Survey on Dealer Financing Terms is available on the Board’s website at www.federalreserve.gov/econresdata/releases/scoos.htm.

liquidity metrics—including bid-asked spreads and bid sizes—have displayed no notable signs of liquidity pressures over the same period. In addition, Treasury auctions generally continued to be well received by investors.

Liquidity conditions in the agency MBS market were also generally stable. Dollar-roll-implied financing rates for production coupon MBS—an indicator of the scarcity of agency MBS for settlement—suggested limited settlement pressures over the second half of 2015 and early 2016.

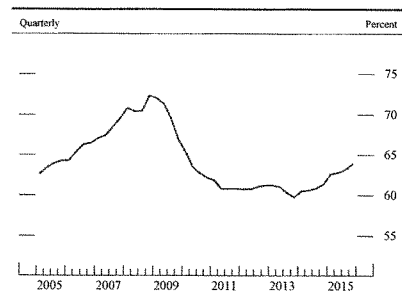
Bank credit has continued to expand and bank profitability rose further

Aggregate credit provided by commercial banks increased at a solid pace in the second half of 2015 (figure 33). The expansion in bank credit was mainly driven by strong growth in loans coupled with an increase in banks' holdings of agency MBS. The growth of loans on banks' books was generally consistent with the SLOOS reports of increased loan demand for many loan categories.

Measures of bank profitability remained below their historical averages but improved slightly during the third quarter of 2015 (the latest available data), supported by lower noninterest expenses (figure 34). Net interest margins were about unchanged, on average, during the third quarter. Delinquency and charge-off rates for most major loan types were generally stable, near or at their lowest levels since the financial crisis.

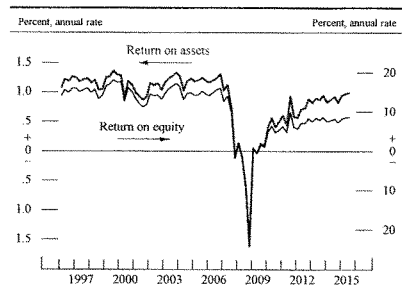
Among large bank holding companies (BHCs), despite generally positive third- and fourth-quarter earnings reports, equity prices have decreased markedly, on balance, since the middle of last year. The decline in bank equity prices likely reflected concerns about global growth, the effects of a flatter yield curve on the outlook for bank profitability, and potential losses due to the decrease in energy prices. Credit default swap (CDS) spreads for large BHCs increased on net.

33. Ratio of total commercial bank credit to nominal gross domestic product



SOURCE: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States"; Department of Commerce, Bureau of Economic Analysis.

34. Profitability of bank holding companies



NOTE: The data, which are seasonally adjusted, are quarterly and extend through 2015:Q3.

SOURCE: Federal Reserve Board, FR Y-9C, Consolidated Financial Statements for Bank Holding Companies.

Developments Related to Financial Stability

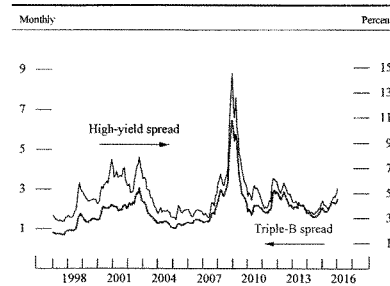
Financial vulnerabilities in the U.S. financial system overall have continued to be moderate since mid-2015. Regulatory capital and liquidity ratios at large banking firms are at historically high levels, and the use of short-term wholesale funding remains relatively low. Debt growth in the household sector continues to be modest and concentrated among borrowers with strong credit histories. Some areas where valuation pressures were a concern have cooled recently; in particular, risk premiums for below-investment-grade debt have widened. However, high leverage of nonfinancial corporations makes some firms highly vulnerable to adverse developments, such as lower oil prices or slowing global growth.

Vulnerabilities owing to leverage and maturity transformation in the financial sector remain low. Regulatory capital ratios at U.S. banking firms increased further in the third quarter of 2015, and holdings of high-quality liquid assets at banking firms also remain at very high levels. In addition, some of the largest domestic banks have reduced their reliance on potentially less stable types of short-term funding. The aggregate delinquency rate on bank loans declined to its lowest level since 2006, though delinquency rates on loans to the oil and gas industry, which account for a small share of most banks' portfolios, have increased. Bank underwriting practices in the leveraged loan market have improved, on balance, over the past year but occasionally still fall short of supervisory expectations. Moreover, domestic banking firms have only limited exposure to emerging market economies. However, developments in foreign economies and financial markets, particularly an escalation of recent volatility or a worsening of the outlook for China, could transmit risks through indirect financial linkages.

Net secured borrowing by dealers, primarily used to finance their own portfolios of securities, continued to decrease and is near historical lows, while securities financing activities aimed at facilitating clients' transactions also remain at low levels. The latter is consistent with reports that dealers have tightened price terms for securities financing and derivatives. The volume of margin loans outstanding—an important component of overall leverage used by hedge funds—appears to have moderated. Short-term funding levels remain relatively low, though reforms aimed at reducing structural vulnerabilities in those markets are still being implemented.

Overall asset valuation pressures have eased. Corporate bond spreads increased notably and are now above their historical norms (figure A). Those spreads appear to have risen by more than the compensation required for higher expected losses, suggesting risk premiums have also increased. Issuance

A. Corporate bond spreads to similar-maturity Treasury securities



NOTE: The spread is the 10-year yield for corporate bonds less the 10-year Treasury yield; bond yields are estimated from a smoothed curve fit to bond yields, and Treasury yields are estimated from a smoothed curve fit to off-the-run Treasury securities.

SOURCE: Department of the Treasury; BofA Merrill Lynch Global Research, used with permission.

of speculative-grade bonds and leveraged loans has slowed significantly, which also could reflect, in part, an increase in investors' risk aversion. Despite the volatility, most indicators of liquidity conditions in corporate bond markets, such as trading volumes and bid-asked spreads, deteriorated only slightly. Nonetheless, the suspension of redemptions in December by a high-yield bond mutual fund that had a high concentration of very low-rated debt and had experienced persistent outflows highlighted a vulnerability at open-end mutual funds that offer daily redemptions to investors while holding less-liquid assets.

Commercial real estate prices continued to rise, supported in part by improved fundamentals, and commercial real estate lending by banks accelerated in recent quarters. However, spreads on securities backed by commercial mortgages widened further and bank lending standards reportedly have tightened since July, suggesting that financing conditions have become a little less accommodative. In addition, late last year, federal banking regulators issued a joint statement reinforcing existing guidance for prudent risk management in that sector.¹ Residential home prices also continued to increase. However, price-to-rent ratios do not suggest that valuations are notably above

1. See Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency (2015), "Agencies Issue Statement on Prudent Risk Management for Commercial Real Estate Lending," press release, December 18, www.federalreserve.gov/newsevents/press/bcreg/20151218a.htm.

historical norms, and residential mortgage debt growth remains minimal.

Broad equity indexes have declined significantly since July 2015, and forward price-to-earnings ratios have fallen to a level closer to their averages of the past three decades. Yields on longer-term Treasury securities decreased over that period, and estimates of term premiums remained low. Because many assets are priced based on Treasury yields, their low level continues to pose a risk to valuations of assets that have lower-than-average earnings yields. However, in December, the Federal Reserve's increase in the target range for the federal funds rate did not result in significant changes in longer-term interest rates or their volatility.

The ratio of private nonfinancial sector credit to gross domestic product remains below estimates of its long-term upward trend, reflecting subdued levels of household debt. Debt growth in the nonfinancial business sector has slowed in recent months, particularly among speculative-grade and unrated firms. However, leverage of such firms has risen to historical highs, especially among those in the oil industry, a development that points to somewhat elevated risks of distress for some business borrowers.

As part of its effort to improve the resilience of financial institutions and overall financial stability, the Federal Reserve Board has taken several further regulatory steps. First, the Board finalized a rule that increases risk-based capital requirements for U.S. global systemically important bank holding companies (G-SIBs).² The applicable surcharges are calibrated based on the systemic footprint of each U.S. G-SIB so that the amount of additional capital a firm must hold increases with the costs that its failure would impose in terms of U.S. financial stability. The G-SIB surcharge rule is designed to ensure that U.S. G-SIBs either hold substantially more capital, reducing the likelihood that they will fail, or choose to shrink their systemic footprint, reducing the harm that their failure would do to the financial system.

Second, the Board announced that it is seeking public comment on its proposed framework for setting the Countercyclical Capital Buffer (CCyB) and voted to affirm the CCyB amount at the current level of 0 percent—consistent with the continued moderate level of financial vulnerabilities.³ The

buffer is a macroprudential tool that can be used to increase the resilience of the financial system by raising capital requirements on internationally active banking organizations when there is an elevated risk of above-normal losses in the future. The CCyB would then be available to help those banking organizations absorb shocks associated with worsening credit conditions, and it may also help moderate fluctuations in the supply of credit. In releasing the framework for comment, the Board consulted with the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency. Should the Board decide to increase the CCyB amount in the future, banking organizations would have 12 months before the change became effective, unless the Board established an earlier effective date.

Third, the Board issued for public comment a proposed rule that would impose total loss-absorbing capacity and long-term debt requirements on U.S. G-SIBs and on the U.S. operations of certain foreign G-SIBs.⁴ The proposal would require each covered firm to maintain a minimum amount of unsecured long-term debt that could be converted into equity in a resolution of the firm, thereby recapitalizing the firm without putting public money at risk. The proposal would diminish the threat that a G-SIB's failure would pose to financial stability and is an important step in addressing the perception that certain institutions are "too big to fail."

Finally, the Board, acting in conjunction with other federal regulatory agencies, issued a final rule imposing minimum margin requirements on certain derivatives transactions that are not centrally cleared.⁵ The swap margin rule will reduce the risk that derivatives transactions would act as a channel for financial contagion and, by imposing higher margin requirements on uncleared swaps than apply to cleared swaps, will incentivize market participants to shift derivatives activity to central clearinghouses.

Proposed Policy Statement Detailing the Framework the Board Would Follow in Setting the Countercyclical Capital Buffer (CCyB)," press release, December 21, www.federalreserve.gov/newsevents/press/bcreg/20151221b.htm.

4. See Board of Governors of the Federal Reserve System (2015), "Federal Reserve Board Proposes New Rule to Strengthen the Ability of Largest Domestic and Foreign Banks Operating in the United States to Be Resolved without Extraordinary Government Support or Taxpayer Assistance," press release, October 30, www.federalreserve.gov/newsevents/press/bcreg/20151030a.htm.

5. See Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, Farm Credit Administration, and Federal Housing Finance Agency (2015), "Agencies Finalize Swap Margin Rule," joint press release, October 30, www.federalreserve.gov/newsevents/press/bcreg/20151030b.htm.

2. See Board of Governors of the Federal Reserve System (2015), "Federal Reserve Board Approves Final Rule Requiring the Largest, Most Systemically Important U.S. Bank Holding Companies to Further Strengthen Their Capital Positions," press release, July 20, www.federalreserve.gov/newsevents/press/bcreg/20150720a.htm.

3. See Board of Governors of the Federal Reserve System (2015), "Federal Reserve Board Seeks Public Comment on

The M2 measure of the money stock has increased at an average annualized rate of about 6 percent since last June, about the same pace registered in the first half of 2015 and faster than nominal GDP growth. Demand for liquid deposits has continued to boost M2 growth.

Municipal bond markets functioned smoothly, but some issuers remained strained

Credit conditions in municipal bond markets have generally remained stable since the middle of last year. Over that period, the MCDX—an index of CDS spreads for a broad portfolio of municipal bonds—and ratios of yields on 20-year general obligation municipal bonds to those on longer-term Treasury securities edged up on net.

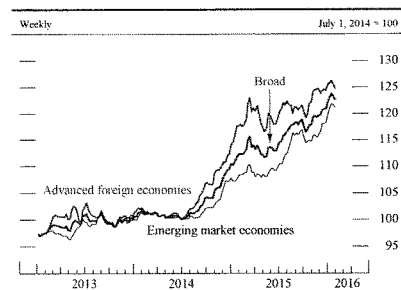
Nevertheless, significant financial strains were still evident for some issuers. In particular, Puerto Rico, which continued to face challenges from subdued economic performance, severe indebtedness, and other fiscal pressures, defaulted on some bond issues not backed by guarantees from the commonwealth and is seeking to restructure its debt.

International Developments

The dollar continued to strengthen . . .

The foreign exchange value of the dollar rose further, on net, since the middle of last year, bringing its increase since mid-2014, when the most recent run-up began, to over 20 percent by the beginning of 2016 (figure 35). Expectations that the Federal Reserve would soon start increasing its policy interest rates, even while most foreign central banks maintained or expanded monetary policy accommodation, boosted the value of the dollar. (For more discussion, see the box “Monetary Policy Divergence in the Advanced Economies.”) The dollar has also appreciated against the renminbi since last summer, when the People’s Bank of China

35. U.S. dollar exchange rate indexes



NOTE: The data, which are in foreign currency units per dollar, are weekly averages of daily data and extend through February 4, 2016.
SOURCE: Federal Reserve Board, Statistical Release H.10, “Foreign Exchange Rates.”

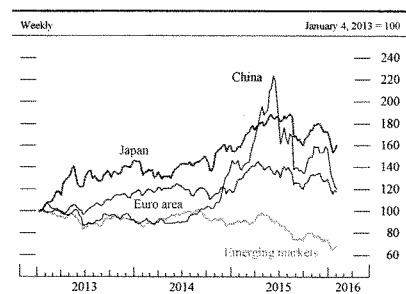
(PBOC) announced it was changing its policy to allow market forces to play a greater role in determining the renminbi's exchange rate. The PBOC allowed the renminbi to depreciate 3 percent against the dollar in August and another 1½ percent after the turn of the year. These developments, which contributed to intensified uncertainty about China's exchange rate policy and the prospects for its economy, fostered episodes of global market turbulence that further boosted the dollar. Investors became more focused on downside risks to prospects for growth in China and, by implication, global growth. These concerns about growth, along with still-strong oil production and high inventories, contributed to a sharp drop in commodity prices, which in turn weighed on the currencies of several commodity-exporting countries.

... while equity prices and foreign sovereign bond yields have declined

Triggered in part by the unexpected devaluation of the renminbi and an ensuing increase in concerns about global economic growth, equity indexes have dropped, on net, in most emerging market economies (EMEs) and advanced foreign economies (AFEs) since the beginning of the summer (figure 36). In particular, Chinese stock prices tumbled more than 40 percent despite official interventions, including circuit breakers and bans on stock sales, that were intended to mute some of the downward pressure. The fall in Brazilian stock prices was also very sharp, as global market turbulence as well as domestic developments, including a corruption scandal, declining output, and persistent high inflation, prompted stock prices to fall nearly 25 percent since last summer.

As in the United States, 10-year sovereign yields declined in most AFEs, likely in part because of increasing concerns about potential deflationary pressure amid falling commodity prices (figure 37). In the euro area, Greek sovereign yields, which had risen sharply in the first half of the year, declined substantially

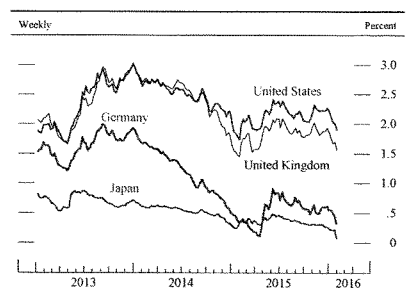
36. Equity indexes for selected foreign economies



NOTE: The data are weekly averages of daily data and extend through February 4, 2016. For Dow Jones Indices licensing information, see the note on the Contents page.

SOURCE: For Japan, Tokyo Stock Price Index (TOPIX); for the euro area, Dow Jones Euro STOXX Index; for China, Shanghai Composite Index; for emerging markets, Morgan Stanley Emerging Markets MEXEF Capital Index; all via Bloomberg.

37. 10-year nominal benchmark yields in selected advanced economies



NOTE: The data are weekly averages of daily data and extend through February 4, 2016.

SOURCE: Bloomberg.

Monetary Policy Divergence in the Advanced Economies

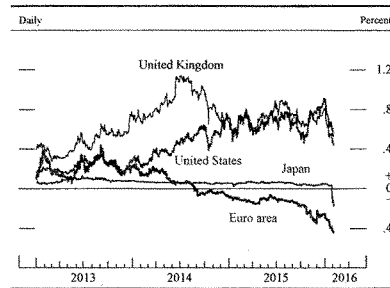
As recovery has gradually taken hold in the U.S. economy over the past few years, both activity and inflation in the advanced foreign economies (AFEs) have remained persistently weak. This divergence in the economic outlooks for the United States and the AFEs has led to expectations of divergence in their monetary policies. Although the Federal Reserve raised its target for the federal funds rate in December, policy rates in most AFEs are near zero (and negative for several economies) and are expected to remain low for several years. Furthermore, the European Central Bank (ECB) and Bank of Japan are providing further monetary accommodation through sizable asset purchase programs, and both of these central banks have indicated that asset purchases will continue, given that inflation remains well below target. Given this ongoing monetary easing, the average policy rate expected by market participants over the next 24 months has declined in the euro area and Japan since 2014, while that of the federal funds rate gradually increased over this period as “liftoff” approached (figure A).

Two effects of these policy divergences that operate through financial markets have important consequences for the economies involved.¹ First, and most obviously, monetary policy divergences have given rise to changes in exchange rates: Portfolio rebalancing by international investors toward economies and currencies with higher interest rates has put downward pressure on AFE currencies, and the dollar has appreciated significantly against these currencies since mid-2014 (text figure 35). This dollar appreciation has contributed to the drag that U.S. net exports have exerted on U.S. economic growth in recent quarters, but the stronger dollar also has contributed to cyclical stabilization abroad as expenditures have shifted toward weaker economies. This effect on international trade is also a consideration for U.S. and foreign monetary policies: All else being equal, a smaller contribution to the U.S. economy from the external sector likely points to a more gradual pace of policy normalization in the United States. By the same token, the economic stimulus from more-depreciated currencies abroad may allow AFE central banks to provide less monetary accommodation—or to start removing it earlier—than would otherwise be the case.

Second, the effect of monetary policy actions on financial conditions may spill over to interest rates in other countries. For example, on ECB policy announcement days, changes in U.S. and German long-term sovereign yields historically have been highly correlated (figure B); similarly large correlations

1. For more detail, see John Ammer, Michiel De Pooter, Christopher Erceg, and Steven Kamin (2016), “International Spillovers of Monetary Policy,” IFDP Notes (Washington: Board of Governors of the Federal Reserve System, February 8), www.federalreserve.gov/econresdata/notes/ifdp-notes/2016/international-spillovers-of-monetary-policy-20160208.html.

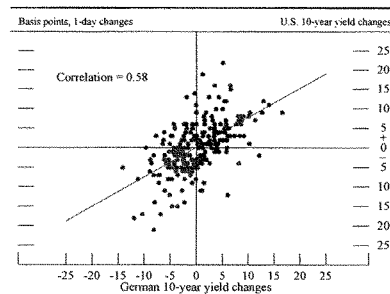
A. Two-year overnight index swap rates in selected advanced economies



SOURCE: Bloomberg.

are observed between U.S. and German yields on days when the Federal Reserve has made policy announcements. In the context of economic and policy divergences, these monetary policy spillovers may alter financial conditions in other countries in ways that are not necessarily consistent with their cyclical stabilization needs. For example, recent monetary easing abroad likely has had a tempering effect on longer-term U.S. interest rates that partially offsets the effect of our own policy normalization. Analogously, reduced monetary accommodation in the United States likely will partially offset the effect of greater monetary accommodation abroad. However, the implications of current policy divergences for monetary spillovers should not be exaggerated: U.S. policy remains accommodative and, on net, likely continues to contribute to accommodative conditions abroad.

B. One-day changes in U.S. and German 10-year yields on ECB policy announcement days, 1999–2015



NOTE: Each point represents the one-day change in U.S. and German 10-year yields on the day of an ECB policy announcement between March 1999 and April 2015. The line indicates the line of best fit.
SOURCE: For U.S. yields, Department of the Treasury; for German yields, Bloomberg; for announcement dates, European Central Bank.

as an agreement was reached last summer between the European Union and Greece. In contrast, bond spreads in a number of EMEs rose modestly, on net, in the second half of the year before moving up more steeply after the start of 2016 amid a widespread increase in risk aversion.

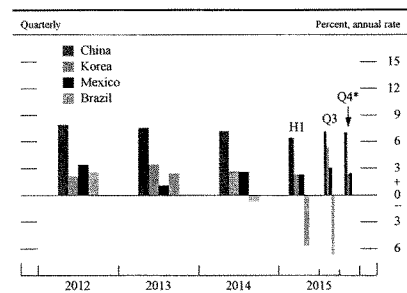
Growth in the emerging market economies moved back up from earlier in 2015 . . .

Following weak growth in the first half of 2015, economic activity in the EMEs improved in the second half, as the pace of growth picked up in Asia and Latin America (figure 38). However, growth has been held back in part by exports from EMEs, which declined appreciably early in 2015 and remain subdued on average.

Economic activity in most of emerging Asia, which had been restrained in the first half of the year by soft external demand and by the outbreak of MERS (Middle East Respiratory Syndrome) in South Korea, picked up in the second half, as the drag from these pressures subsided. In China, GDP growth is reported to have held steady around 7 percent in the second half of the year, boosted in part by relatively strong growth in services. However, weak manufacturing, as well as the financial market volatility noted previously, led to a pronounced heightening of concerns about the economy during the second half of the year.

In Latin America, the decline in commodity prices, along with other macroeconomic challenges, continued to weigh on the economic activity of several countries. In Mexico, the economy continued to grow at a moderate pace in the second half of 2015, supported by improving household demand. However, low oil prices have pressured public finances, and manufacturing exports faltered toward the end of the year. In Brazil, the economy is undergoing its most severe recession in decades. Tight monetary policy in response to high inflation, low commodity

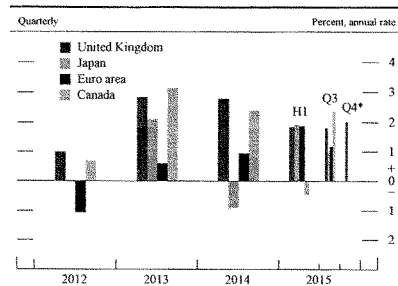
38. Real gross domestic product growth in selected emerging market economies



* Gross domestic product of Brazil is not yet available for 2015 Q4.
NOTE: The data for Mexico incorporate the flash estimate for 2015 Q4. The data for China are seasonally adjusted by staff. The data for Mexico, Brazil, and Korea are seasonally adjusted by their respective government agencies.

SOURCE: For China, China National Bureau of Statistics; for Korea, Bank of Korea; for Mexico, Instituto Nacional de Estadística Geografía e Informática; for Brazil, Instituto Brasileiro de Geografia e Estatística; all via Haver Analytics.

39. Real gross domestic product growth in selected advanced foreign economies



* Gross domestic products of the euro area, Japan, and Canada are not yet available for 2015:Q4.

SOURCE: For the euro area, Eurostat; for Japan, Cabinet Office, Government of Japan; for Canada, Statistics Canada; for the United Kingdom, Office for National Statistics; all via Haver Analytics.

prices, and the fallout from a high-profile corruption scandal eroded business confidence and contributed to a collapse in investment.

Inflation remained subdued in many EMEs, as the continuing decline in commodity prices contributed to a moderation of headline inflation. Consequently, some central banks, including those of Korea and India, loosened monetary policy to support growth. In China, the PBOC also lowered its benchmark rate and cut the reserve requirement ratio in August and October to address weakness in the economy. In contrast, faced with inflationary pressures stemming partly from their depreciating currencies, Brazil, Chile, and Colombia raised their policy rates in the second half of 2015.

. . . and in the advanced foreign economies, economic activity expanded at a moderate pace

In Canada, where low oil prices induced a mild contraction earlier in the year, economic activity rebounded in the third quarter as exports recovered and business-sector investment contracted at a slower pace. That said, more recent indicators of growth weakened markedly during the fourth quarter. In contrast, in the euro area, Japan, and the United Kingdom, economic activity grew moderately in the third quarter, and recent indicators for fourth-quarter growth, such as purchasing managers indexes, have largely held steady (figure 39).

As in the United States, inflation remained low in most advanced foreign economies. Further declines in commodity prices weighed on inflation in the AFEs; in the euro area, Japan, and the United Kingdom, consumer prices changed little in 2015. Over the same period, consumer prices rose about 1½ percent in Canada, reflecting the boost to import prices from the sharp depreciation of the Canadian dollar over the past year.

With inflation low, AFE central banks maintained highly accommodative monetary policies, and some signaled their intention to maintain large balance sheets well into the future. The European Central Bank, in addition to lowering its deposit rate further into negative territory, announced an extension of the intended duration of its asset purchase program through at least March 2017 and that it would reinvest principal payments for as long

as necessary. The Bank of England announced that it will start shrinking its balance sheet only after its policy rate rises to about 2 percent from its current level of $\frac{1}{2}$ percent. Meanwhile, in response to weak economic performance earlier in 2015, the Bank of Canada cut its policy rate further. More recently, the Bank of Japan cut the interest rate that it pays on a portion of banks' current account deposits to negative 0.1 percent.

PART 2

MONETARY POLICY

In December, the Federal Open Market Committee (FOMC) raised the target range for the federal funds rate by $\frac{1}{4}$ percentage point after seven years in which that rate had been held near zero. The FOMC's decision reflected the considerable improvement in the labor market last year and the Committee's assessment that, even with the modest reduction in policy accommodation, the labor market would continue to strengthen and inflation would return over the medium term to the FOMC's 2 percent objective. Monetary policy remains accommodative, and the Committee expects that economic conditions will warrant only gradual increases in the federal funds rate. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.

The FOMC raised the federal funds rate target range in December . . .

Since last March, the FOMC had anticipated that it would be appropriate to increase the federal funds rate when it had seen further improvement in the labor market and was reasonably confident that inflation would move back to 2 percent over the medium term. In December, the FOMC, judging that these criteria had been met, raised the target range for the federal funds rate to $\frac{1}{4}$ to $\frac{1}{2}$ percent (figure 40).⁴

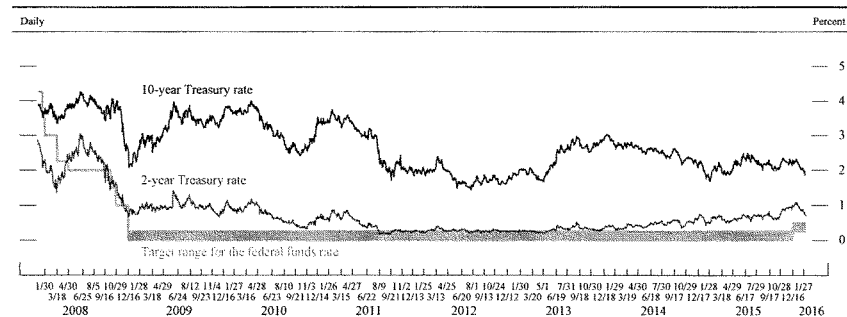
4. See Board of Governors of the Federal Reserve System (2015), "Federal Reserve Issues FOMC Statement," press release, December 16, www.federalreserve.gov/news-events/press/monetary/20151216a.htm.

The Committee's decision to raise the federal funds rate recognized the time it takes for policy actions to affect future economic outcomes; if the FOMC delayed the start of policy normalization for too long, a relatively abrupt tightening of policy might eventually be needed to keep the economy from overheating and inflation from significantly overshooting the Committee's 2 percent objective. Such an abrupt tightening could disrupt financial markets and perhaps even inadvertently push the economy into recession.

. . . but monetary policy remains accommodative

Even after the increase in the federal funds rate late last year, the stance of monetary

40. Selected interest rates



NOTE: The 2-year and 10-year Treasury rates are the constant-maturity yields based on the most actively traded securities. The dates on the horizontal axis are those of regularly scheduled Federal Open Market Committee meetings.
SOURCE: Department of the Treasury, Federal Reserve Board.

policy remains accommodative. The FOMC anticipates that economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate, and that the federal funds rate is likely to remain, for some time, below the levels that are expected to prevail in the longer run.

This expectation is consistent with the view that the neutral nominal federal funds rate—defined as the value of the federal funds rate that would be neither expansionary nor contractionary if the economy was operating at its productive potential—is currently low by historical standards and is likely to rise only gradually over time. One indication that the neutral federal funds rate is low is that U.S. economic growth has been only moderate in recent years despite the very low level of the federal funds rate and the Federal Reserve's very large holdings of longer-term securities. Had the neutral rate been running closer to the average level estimated to have prevailed in recent decades, these policy actions would have been expected to foster a much more rapid economic expansion.

An array of persistent economic headwinds have weighed on aggregate demand since the financial crisis; these headwinds included, at various times, limited access to credit for some borrowers, contractionary fiscal policy, and weak growth abroad coupled with a significant appreciation of the dollar. Although the overall restraint imposed by such headwinds has declined over the past few years, the effects of some headwinds have remained significant. As these effects abate further, the neutral federal funds rate should gradually move higher over time. (For a discussion of how the neutral federal funds rate is likely to evolve over time, see the box “The Neutral Federal Funds Rate in the Longer Run.”)

Another reason that the Committee expects only a gradual increase in the federal funds rate will be warranted is that, with the federal funds rate near zero, the FOMC can respond more readily to upside surprises to inflation,

economic growth, and employment than to downside shocks. This asymmetry suggests that it is appropriate to be more cautious in normalizing the stance of monetary policy than would be the case if short-term nominal interest rates were appreciably above zero.

In part reflecting this concern, the FOMC continued to reinvest principal payments from its securities portfolio, and the Committee expects that this reinvestment policy will be maintained until normalization of the level of the federal funds rate is well under way. Maintaining sizable holdings of longer-term securities should help support accommodative financial conditions and reduce the risk that the Committee would not be able to deliver sufficient accommodation by lowering the federal funds rate in the event of future adverse shocks.

The FOMC expects that, supported by an accommodative monetary policy, economic activity will continue to expand at a moderate pace and the labor market will continue to strengthen. Inflation is expected to remain low in the near term, in part because of recent further declines in energy prices, but to rise to 2 percent over the medium term as the transitory effects of declines in energy and import prices dissipate and the labor market strengthens further. In light of the current shortfall of inflation from 2 percent, the Committee is carefully monitoring actual and expected progress toward its inflation goal.

The FOMC's policy decisions will continue to be data dependent

Although the Committee expects that economic conditions will warrant only gradual increases in the federal funds rate, the Committee has emphasized that the actual path of monetary policy will depend on how incoming data affect the economic outlook. In determining the timing and size of future adjustments to the target range, the Committee will assess realized and expected economic conditions relative

to its objectives of maximum employment and 2 percent inflation. Stronger growth or a more rapid increase in inflation than the Committee currently anticipates would likely call for faster increases in the federal funds rate; conversely, if conditions prove weaker, a lower path of the federal funds rate would likely be appropriate. Similarly, the timing of a change in the reinvestment policy will depend on economic developments and their implications for progress toward the FOMC's goals of maximum employment and price stability. In assessing realized changes in economic conditions and forming its outlook, the Committee will take into account a wide range of measures, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments.

The size of the Federal Reserve's balance sheet has remained stable

With the continuation of the Committee's reinvestment policy, the Federal Reserve's total assets have held steady at around \$4.5 trillion (figure 41). Holdings of U.S. Treasury securities in the System Open Market Account (SOMA) have remained at \$2.5 trillion, and holdings of agency debt and agency

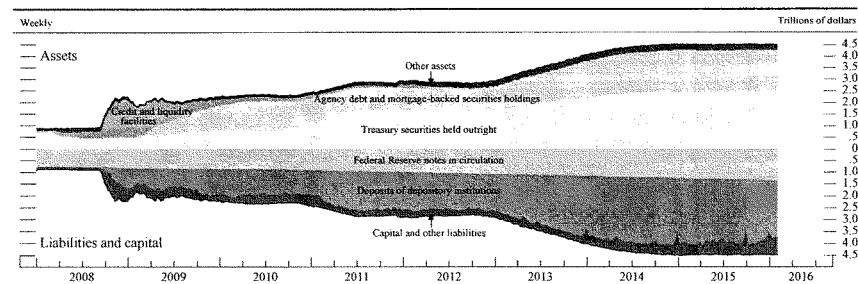
mortgage-backed securities at approximately \$1.8 trillion. Consequently, total liabilities on the Federal Reserve's balance sheet were largely unchanged.

Given the Federal Reserve's large securities holdings, interest income on the SOMA portfolio has continued to support substantial remittances to the U.S. Treasury Department. Preliminary results indicate that the Reserve Banks provided for payments of \$97.7 billion of their estimated 2015 net income to the Treasury. In addition, the Reserve Banks transferred to the Treasury \$19.3 billion from their capital surplus as required by an amendment to the Federal Reserve Act contained in the Fixing America's Surface Transportation Act of 2015. Remittances from 2008 through 2015 total about \$600 billion on a cumulative basis—an average of about \$75 billion a year, compared with about \$25 billion a year, on average, over the decade prior to 2008.

The Committee continued to focus on the implementation of monetary policy

Consistent with the FOMC's Policy Normalization Principles and Plans published on September 17, 2014, the Federal Reserve used interest paid on reserve balances

41. Federal Reserve assets and liabilities



NOTE: "Credit and liquidity facilities" consists of primary, secondary, and seasonal credit, term auction credit, central bank liquidity swaps, support for Maiden Lane, Bear Stearns, and AIG, and other credit facilities, including the Primary Dealer Credit Facility, the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, and the Term Asset-Backed Securities Loan Facility. "Other assets" includes unamortized premiums and discounts on securities held outright. "Capital and other liabilities" includes reverse repurchase agreements, the U.S. Treasury General Account, and the U.S. Treasury Supplementary Financing Account. The data extend through February 3, 2016.

SOURCE: Federal Reserve Board, Statistical Release H.4.1, "Factors Affecting Reserve Balances."

The Neutral Federal Funds Rate in the Longer Run

As discussed in the main text, economic growth has been only moderate in recent years despite the very low level of the federal funds rate and the Federal Reserve's large-scale purchases of longer-term securities. This observation suggests that headwinds have lowered the "neutral" federal funds rate—defined as the value of the federal funds rate that would be neither expansionary nor contractionary if the economy was operating at its productive potential—to historically low levels.

As economic disturbances dissipate, the neutral federal funds rate should rise to its expected longer-run level. This longer-run value of the neutral rate plays an important role in monetary policy analysis: It is a key determinant of the longer-run level of the federal funds rate and other nominal interest rates. When expressed on a real basis, it also corresponds to the intercept of simple policy rules such as those studied in Taylor (1993).¹ Like the current neutral rate, the longer-run value of the neutral rate is not directly observed and must be estimated using the available data and potentially imperfect models of the economy.

Since 2012, the median of the projections of the longer-run level of the federal funds rate in the Federal Open Market Committee's Summary of

Economic Projections has fallen from 4.25 percent to 3.50 percent.² In addition, several econometric studies have estimated a decline in the longer-run value of the neutral rate by statistically modeling the co-movements between variables like inflation, interest rates, output, and unemployment.³ Figure A shows estimates from

2. See the December 2015 Summary of Economic Projections, which appeared as an addendum to the minutes of the December 15–16, 2015, meeting of the Federal Open Market Committee and is included as Part 3 of this report.

3. See, for example, Benjamin K. Johansson and Elmar Mertens (forthcoming), "The Expected Real Interest Rate in the Long Run: Time Series Evidence with the Effective Lower Bound," FEDS Notes (Washington: Board of Governors of the Federal Reserve System); Michael T. Kiley (2015), "What Can the Data Tell Us about the Equilibrium Real Interest Rate?" Finance and Economics Discussion Series 2015-077 (Washington: Board of Governors of the Federal Reserve System, August), www.federalreserve.gov/econresdata/feds/2015/files/2015077pap.pdf; Thomas Laubach and John Williams (2015), "Measuring the Natural Rate of Interest Redux," Hutchins Center Working Papers 15 (Washington: Brookings Institution, November), www.brookings.edu/~media/Research/Files/Papers/2015/10/30-laubach-williams/WP15-Laubach-Williams-natural-interest-rate-redux-2.pdf?la=en; and Thomas A. Lubik and Christian Matthes (2015), "Calculating the Natural Rate of Interest: A Comparison of Two Alternative Approaches," Economic Brief 15-10 (Richmond: Federal Reserve Bank of Richmond, October), https://www.richmondfed.org/~media/richmondfedorg/publications/research/economic_brief/2015/pdf/eb_15-10.pdf. In these

1. See John B. Taylor (1993), "Discretion versus Policy Rules in Practice," *Carnegie-Rochester Conference Series on Public Policy*, vol. 39 (December), pp. 195–214.

and also employed an overnight reverse repurchase agreement (ON RRP) facility to implement its decision in December to raise the target range for the federal funds rate.⁵ Specifically, the Board of Governors raised the interest rate paid on required and excess reserve balances to ½ percent, while the FOMC authorized ON RRP operations at an offering rate of ¼ percent. (For further information, see the box "Monetary Policy

Implementation following the December 2015 FOMC Meeting.") In addition, the Board of Governors approved an increase in the discount rate (the primary credit rate) to 1 percent.

Along with the decision to increase the target range for the federal funds rate, the FOMC also temporarily suspended the aggregate cap on ON RRP transactions, indicating that ON RRP operations would be undertaken in amounts limited only by the value of Treasury securities held outright in the SOMA that are available for such operations and by a per-counterparty limit of \$30 billion per day. Nonetheless, total reverse repurchase

5. See Board of Governors of the Federal Reserve System (2014), "Federal Reserve Issues FOMC Statement on Policy Normalization Principles and Plans," press release, September 17, www.federalreserve.gov/newsevents/press/monetary/20140917c.htm.

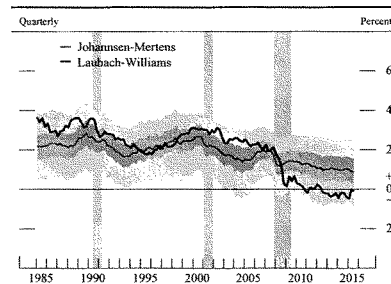
two time-series models of the longer-run value of the neutral rate, expressed on a real basis. One is from Johansen and Mertens (forthcoming), and the other is from Laubach and Williams (2015).⁴ The figure includes the uncertainty bands for the Johansen and Mertens estimates, which indicate that the uncertainty surrounding the longer-run value of the neutral rate is substantial (as it is in other model frameworks).

Uncertainty about the longer-run value of the neutral rate implies uncertainty about the expected cumulative rise in policy rates during the policy normalization process. The risk that the longer-run value of the neutral rate going forward could be lower than currently estimated is especially pertinent, because such a scenario would likely increase the probability that monetary policy will be constrained by the effective lower bound on nominal interest rates in the future, with adverse consequences for macroeconomic outcomes.

studies, the longer-run value of the neutral rate is sometimes referred to as the longer-run value of the “natural” rate or the longer-run “equilibrium” federal funds rate.

4. The estimates from the Johansen-Mertens and Laubach-Williams models are not the same because the models use different data to infer slack in the economy and because the model restrictions and estimation methods are different.

A. Estimates of the neutral real rate in the longer run



NOTE: The data extend through 2015:Q3. For the Johansen-Mertens model, at each date, the parameters of the model and the longer-run equilibrium real rate are jointly estimated using data up to that date. For the Laubach-Williams model, the parameters are estimated on the entire data sample, but estimates of the longer-run equilibrium real rate use data only up to the date of interest. Shaded regions are 50 and 90 percent uncertainty bands from the Johansen-Mertens model. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

SOURCE: Benjamin K. Johansen and Elmar Mertens (forthcoming), “The Expected Real Interest Rate in the Long Run: Time Series Evidence with the Effective Lower Bound,” FEDS Notes (Washington: Board of Governors of the Federal Reserve System), and Thomas Laubach and John Williams (2015), “Measuring the Natural Rate of Interest Redux,” Hutchins Center Working Papers 15 (Washington: Brookings Institution, November), www.brookings.edu/~media/Research/Files/Papers/2015/10/30-laubach-williams/WP15-Laubach-Williams-natural-interest-rate-redux-2.pdf?la=en.

agreement transactions with the Federal Reserve have remained near levels observed prior to the increase in the target range for the federal funds rate and the suspension of the aggregate cap. The Committee intends to phase out this facility when it is no longer needed to help control the federal funds rate.

The Federal Reserve also continued to test the operational readiness of other policy

tools. Three Term Deposit Facility operations were conducted in the second half of 2015. The operations offered either 7- or 14-day deposits at a floating rate of 1 basis point over the interest rate on excess reserves. In these operations, deposit volumes declined slightly from previous tests with similar parameters.

Monetary Policy Implementation following the December 2015 FOMC Meeting

At its December 2015 meeting, the Federal Open Market Committee (FOMC) increased the target range for the federal funds rate from between 0 and $\frac{1}{4}$ percent to between $\frac{1}{4}$ and $\frac{1}{2}$ percent, effective December 17.¹ In order to implement the monetary policy stance announced in December, the Board of Governors also voted to raise the interest rate paid on required and excess reserve balances to 0.50 percent. Moreover, the FOMC authorized an increase in the overnight reverse repurchase agreement (ON RRP) facility offering rate to 0.25 percent and indicated that the aggregate amount of the ON RRP operations would be constrained only by the value of Treasury securities held outright in the System Open Market Account that are available for such operations.² Each of these monetary policy decisions is consistent with the guidance provided in the Policy Normalization Principles and Plans outlined in the July 2015 *Monetary Policy Report*.³

1. See Board of Governors of the Federal Reserve System (2015), "Federal Reserve Issues FOMC Statement," press release, December 16, www.federalreserve.gov/newsevents/press/monetary/20151216a.htm.

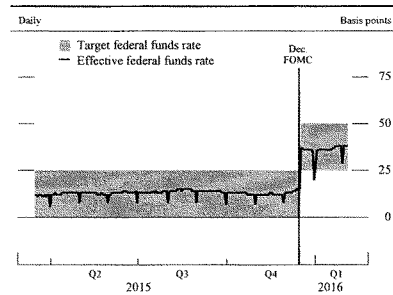
2. In a related action, the Board of Governors voted to approve a $\frac{1}{4}$ percentage point increase in the discount rate to 1 percent.

3. See the box "Policy Normalization Principles and Plans: Additional Details" in Board of Governors of the Federal Reserve System (2015), *Monetary Policy Report* (Washington: Board of Governors, July), p. 35, www.federalreserve.gov/monetarypolicy/files/20150715_mprfullreport.pdf.

The effective federal funds rate rose to 0.37 percent at the time of the change to the target range for the federal funds rate amid orderly trading conditions in money markets (figure A). Since the increase in the target range, the effective federal funds rate has traded in a relatively narrow range of 0.35 to 0.38 percent, with the exception of month-ends, when the rate fell temporarily in typical fashion. Increases in interest rates in other money markets were similar to the rise in the federal funds rate following the December meeting, with overnight Eurodollar rates closely tracking the effective federal funds rate and the general collateral repurchase agreement (or repo) rate maintaining spreads to unsecured rates similar to those observed before the December meeting.

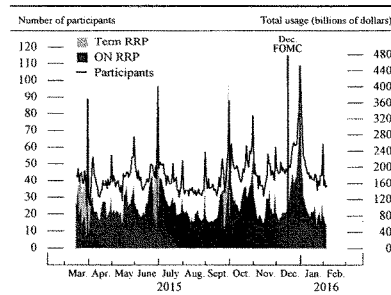
Total volume in the ON RRP facility was virtually unchanged on the day after the December meeting (figure B). In the weeks following the December meeting, the total amount of Federal Reserve reverse repurchase agreement (RRP) operations reflected typical calendar-related effects. On year-end, volume in the ON RRP facility was nearly \$475 billion, roughly in line with aggregate RRP operations seen on recent quarter-ends. Following year-end, usage of the ON RRP facility rapidly returned to—and has remained at—levels that prevailed before year-end, consistent with recent quarter-end patterns.

A. Effective federal funds rate



SOURCE: Federal Reserve Bank of New York.

B. Reverse repurchase agreement operations



NOTE: ON RRP is overnight reverse repurchase agreement; term RRP is term reverse repurchase agreement. Data are daily.
SOURCE: Federal Reserve Bank of New York.

PART 3

SUMMARY OF ECONOMIC PROJECTIONS

The following material appeared as an addendum to the minutes of the December 15–16, 2015, meeting of the Federal Open Market Committee.

In conjunction with the Federal Open Market Committee (FOMC) meeting held on December 15–16, 2015, meeting participants submitted their projections of the most likely outcomes for real output growth, the unemployment rate, inflation, and the federal funds rate for each year from 2015 to 2018 and over the longer run.⁶ Each participant's projection was based on information available at the time of the meeting, together with his or her assessment of appropriate monetary policy and assumptions about the factors likely to affect economic outcomes. The longer-run projections represent each participant's assessment of the value to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. "Appropriate monetary policy" is defined as the future path of policy that each participant deems most likely to foster outcomes for economic activity and inflation that best satisfy his or her individual interpretation of the Federal Reserve's objectives of maximum employment and stable prices.

FOMC participants generally expected that, under appropriate monetary policy, real gross domestic product (GDP) growth in 2016 and 2017 would be at or somewhat above their individual estimates of the longer-run growth rate and would converge toward its longer-run rate in 2018 (table 1 and figure 1). All participants projected that the unemployment rate would decline further in 2016. Most participants expected that in

2018 the unemployment rate would remain somewhat below their individual judgments of its longer-run normal rate. Participants projected that inflation, as measured by the four-quarter change in the price index for personal consumption expenditures (PCE), would pick up in 2016 and 2017 from the very low rate seen in 2015. Almost all participants projected inflation in 2018 to be at or very near the Committee's 2 percent objective.

As shown in figure 2, all but two participants thought that it would be appropriate to raise the target range for the federal funds rate before the end of 2015. Most participants expected that it would be appropriate to raise the target range for the federal funds rate gradually over the projection period as headwinds to economic growth dissipate slowly over time and as inflation rises toward the Committee's goal of 2 percent. Consistent with this outlook, most participants projected that the appropriate level of the federal funds rate would be below its longer-run level through 2018.

Almost all participants viewed the levels of uncertainty associated with their outlooks for economic growth and the unemployment rate as broadly similar to the norms of the previous 20 years. Nearly all also viewed the levels of uncertainty associated with their inflation forecasts as broadly similar to historical norms. Most participants saw the risks to their outlooks for real GDP growth and the unemployment rate as broadly balanced. A majority viewed the risks attending their projections for both PCE and core PCE inflation as broadly balanced, but many saw these risks as weighted to the downside. Among those who saw the risks to their inflation outlook as tilted to the downside,

6. The president of the Federal Reserve Bank of Minneapolis did not participate in this FOMC meeting, and the incoming president is scheduled to assume office on January 1, 2016. James M. Lyon, First Vice President of the Federal Reserve Bank of Minneapolis, submitted economic projections.

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assessments of projected appropriate monetary policy, December 2015

Variable	Median ¹					Central tendency ²					Range ³				
	2015	2016	2017	2018	Longer run	2015	2016	2017	2018	Longer run	2015	2016	2017	2018	Longer run
Change in real GDP.....	2.1	2.4	2.2	2.0	2.0	2.1	2.3-2.5	2.0-2.3	1.8-2.2	1.8-2.2	2.0-2.2	2.0-2.7	1.8-2.5	1.7-2.4	1.8-2.3
September projection	2.1	2.3	2.2	2.0	2.0	2.0-2.3	2.2-2.6	2.0-2.4	1.8-2.2	1.8-2.2	1.9-2.5	2.1-2.8	1.9-2.6	1.6-2.4	1.8-2.7
Unemployment rate	5.0	4.7	4.7	4.7	4.9	5.0	4.6-4.8	4.6-4.8	4.6-5.0	4.8-5.0	5.0	4.3-4.9	4.5-5.0	4.5-5.3	4.7-5.8
September projection	5.0	4.8	4.8	4.8	4.9	5.0-5.1	4.7-4.9	4.7-4.9	4.7-5.0	4.9-5.2	4.9-5.2	4.5-5.0	4.5-5.0	4.6-5.3	4.7-5.8
PCE inflation	0.4	1.6	1.9	2.0	2.0	0.4	1.2-1.7	1.8-2.0	1.9-2.0	2.0	0.3-0.5	1.2-2.1	1.7-2.0	1.7-2.1	2.0
September projection	0.4	1.7	1.9	2.0	2.0	0.3-0.5	1.5-1.8	1.8-2.0	2.0	2.0	0.3-1.0	1.5-2.4	1.7-2.2	1.8-2.1	2.0
Core PCE inflation ⁴	1.3	1.6	1.9	2.0		1.3	1.5-1.7	1.7-2.0	1.9-2.0		1.2-1.4	1.4-2.1	1.6-2.0	1.7-2.1	
September projection	1.4	1.7	1.9	2.0		1.3-1.4	1.5-1.8	1.8-2.0	1.9-2.0		1.2-1.7	1.5-2.4	1.7-2.2	1.8-2.1	
Memo: Projected appropriate policy path															
Federal funds rate	0.4	1.4	2.4	3.3	3.5	0.4	0.9-1.4	1.9-3.0	2.9-3.5	3.3-3.5	0.1-0.4	0.9-2.1	1.9-3.4	2.1-3.9	3.0-4.0
September projection	0.4	1.4	2.6	3.4	3.5	0.1-0.6	1.1-2.1	2.1-3.4	3.0-3.6	3.3-3.8	-0.1-0.9	-0.1-2.9	1.0-3.9	2.9-3.9	3.0-4.0

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The September projections were made in conjunction with the meeting of the Federal Open Market Committee on September 16-17, 2015.

1. For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.
2. The central tendency excludes the three highest and three lowest projections for each variable in each year.
3. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
4. Longer-run projections for core PCE inflation are not collected.

several highlighted the continued strength of the dollar and some recent indications that inflation expectations had declined as contributing to those risks.

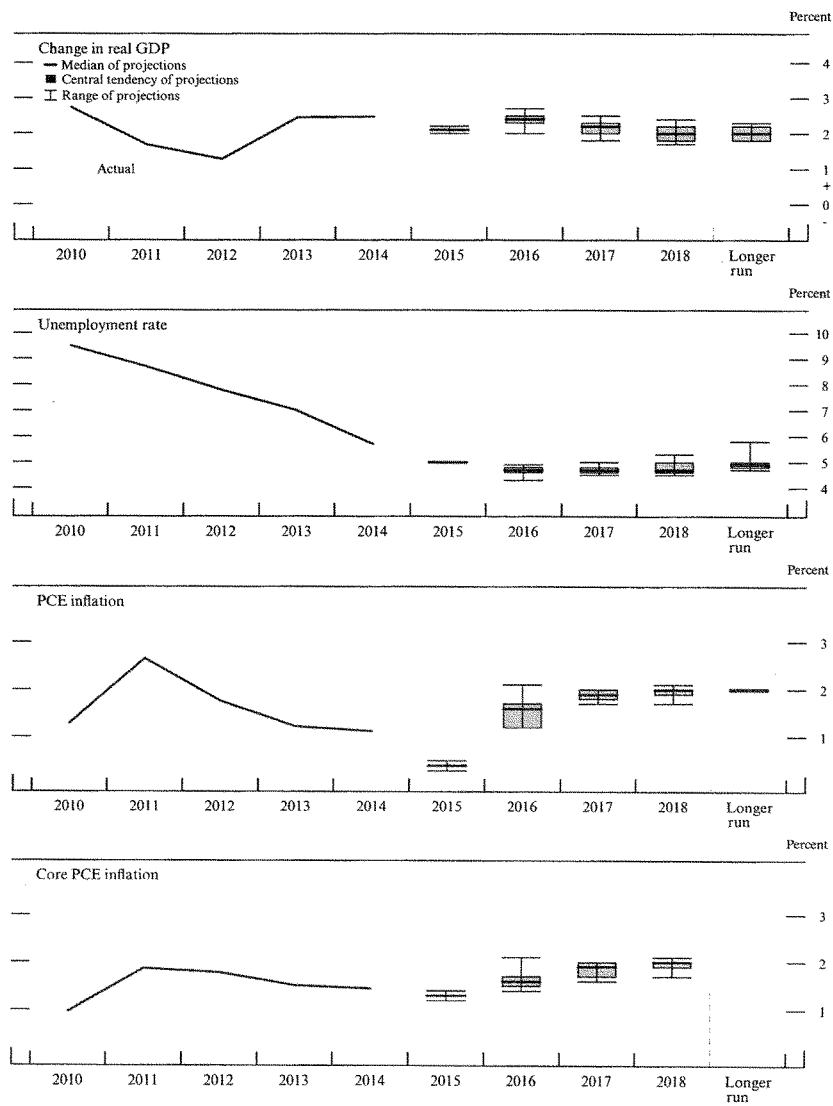
The Outlook for Economic Activity

Participants generally projected that, conditional on their individual assumptions about appropriate monetary policy, real GDP would increase in 2016 and 2017 at a pace somewhat above their estimates of its longer-run rate. Real GDP growth would then slow in 2018 to a rate at or near their individual estimates of the longer-run normal rate. Participants pointed to a number of factors that they expect will contribute to moderate output growth over the next few years, including labor market conditions that are supportive of economic expansion, household and business balance sheets that had improved significantly since the financial crisis, and a stance of monetary policy that was expected to remain accommodative.

Compared with their contributions to the Summary of Economic Projections (SEP) in September, participants' projections of real GDP growth from 2016 to 2018 were generally little changed. The median value of participants' projections for real GDP growth in 2016 was revised up slightly to 2.4 percent; some participants cited the Bipartisan Budget Act of 2015, which was passed in late October, as adding support to economic growth in the near term. Very few participants changed their forecasts for real GDP growth in the longer run, resulting in an unchanged median.

All participants projected that the unemployment rate would be at or below their individual judgments of its longer-run normal level from 2016 through 2018. Compared with the September SEP, most participants' projected paths for the unemployment rate were revised down a little over those three years, with the median of the projections in the fourth quarter of each year at 4.7 percent. Many also revised down slightly their

Figure 1. Medians, central tendencies, and ranges of economic projections, 2015–18 and over the longer run



NOTE: Definitions of variables are in the general note to table 1. The data for the actual values of the variables are annual.

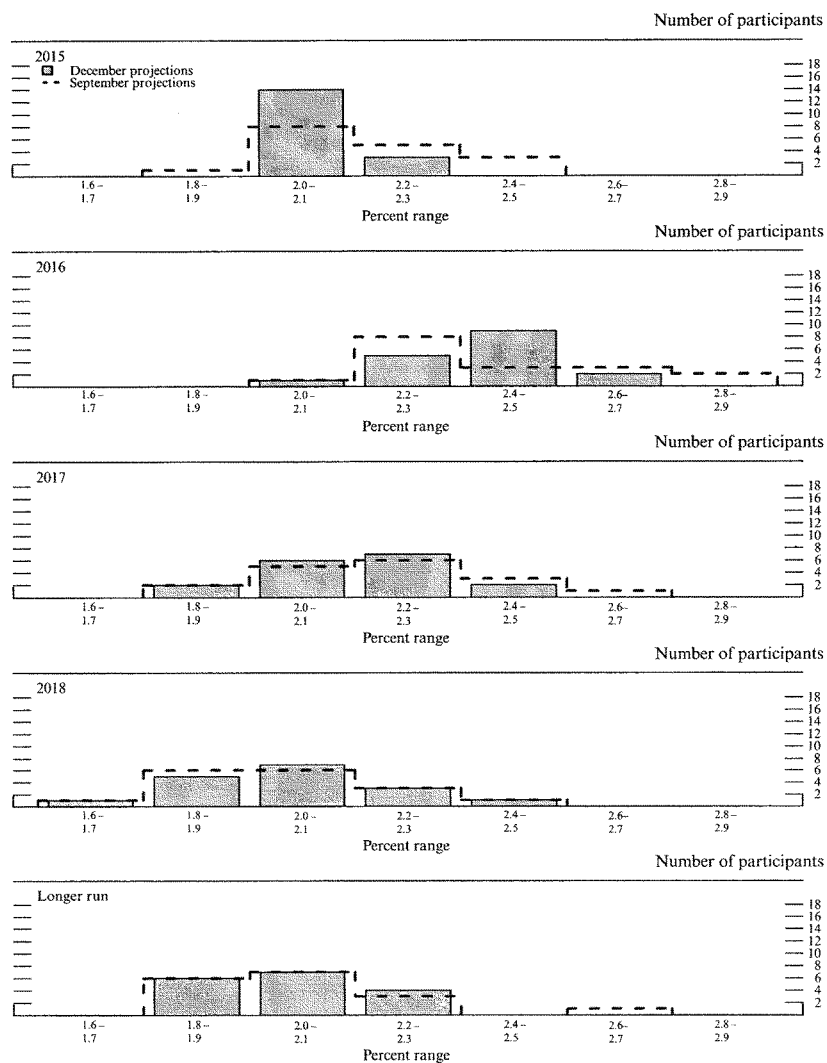
Figure 1 is a dot plot showing the percentage of respondents who agree or strongly agree with the statement "The government should do more to protect the environment" across four time points: 2015, 2016, 2017, 2018, and a "Longer run" period. The y-axis represents the percentage from 0 to 4. A vertical dashed line separates the 2018 data from the "Longer run" data. The data points are represented by small circles, with some circles containing numbers indicating the sample size for each point.

Year	Percentage (approx.)	Sample Size (n)
2015	0.0	100
2015	0.2	100
2015	0.4	100
2015	0.6	100
2015	0.8	100
2015	1.0	100
2015	1.2	100
2015	1.4	100
2015	1.6	100
2015	1.8	100
2015	2.0	100
2015	2.2	100
2015	2.4	100
2015	2.6	100
2015	2.8	100
2015	3.0	100
2015	3.2	100
2015	3.4	100
2015	3.6	100
2015	3.8	100
2015	4.0	100
2016	0.0	100
2016	0.2	100
2016	0.4	100
2016	0.6	100
2016	0.8	100
2016	1.0	100
2016	1.2	100
2016	1.4	100
2016	1.6	100
2016	1.8	100
2016	2.0	100
2016	2.2	100
2016	2.4	100
2016	2.6	100
2016	2.8	100
2016	3.0	100
2016	3.2	100
2016	3.4	100
2016	3.6	100
2016	3.8	100
2016	4.0	100
2017	0.0	100
2017	0.2	100
2017	0.4	100
2017	0.6	100
2017	0.8	100
2017	1.0	100
2017	1.2	100
2017	1.4	100
2017	1.6	100
2017	1.8	100
2017	2.0	100
2017	2.2	100
2017	2.4	100
2017	2.6	100
2017	2.8	100
2017	3.0	100
2017	3.2	100
2017	3.4	100
2017	3.6	100
2017	3.8	100
2017	4.0	100
2018	0.0	100
2018	0.2	100
2018	0.4	100
2018	0.6	100
2018	0.8	100
2018	1.0	100
2018	1.2	100
2018	1.4	100
2018	1.6	100
2018	1.8	100
2018	2.0	100
2018	2.2	100
2018	2.4	100
2018	2.6	100
2018	2.8	100
2018	3.0	100
2018	3.2	100
2018	3.4	100
2018	3.6	100
2018	3.8	100
2018	4.0	100
Longer run	0.0	100
Longer run	0.2	100
Longer run	0.4	100
Longer run	0.6	100
Longer run	0.8	100
Longer run	1.0	100
Longer run	1.2	100
Longer run	1.4	100
Longer run	1.6	100
Longer run	1.8	100
Longer run	2.0	100
Longer run	2.2	100
Longer run	2.4	100
Longer run	2.6	100
Longer run	2.8	100
Longer run	3.0	100
Longer run	3.2	100
Longer run	3.4	100
Longer run	3.6	100
Longer run	3.8	100
Longer run	4.0	100

Figures 3.A and 3.B show the distribution of participants' views regarding the likely outcomes for real GDP growth and the unemployment rate through 2018 and in the longer run. The distributions of the projections for real GDP growth over the next several years and in the longer run narrowed some since the September SEP. The diversity of views across participants on the outlook for GDP growth reflected, in part, differences

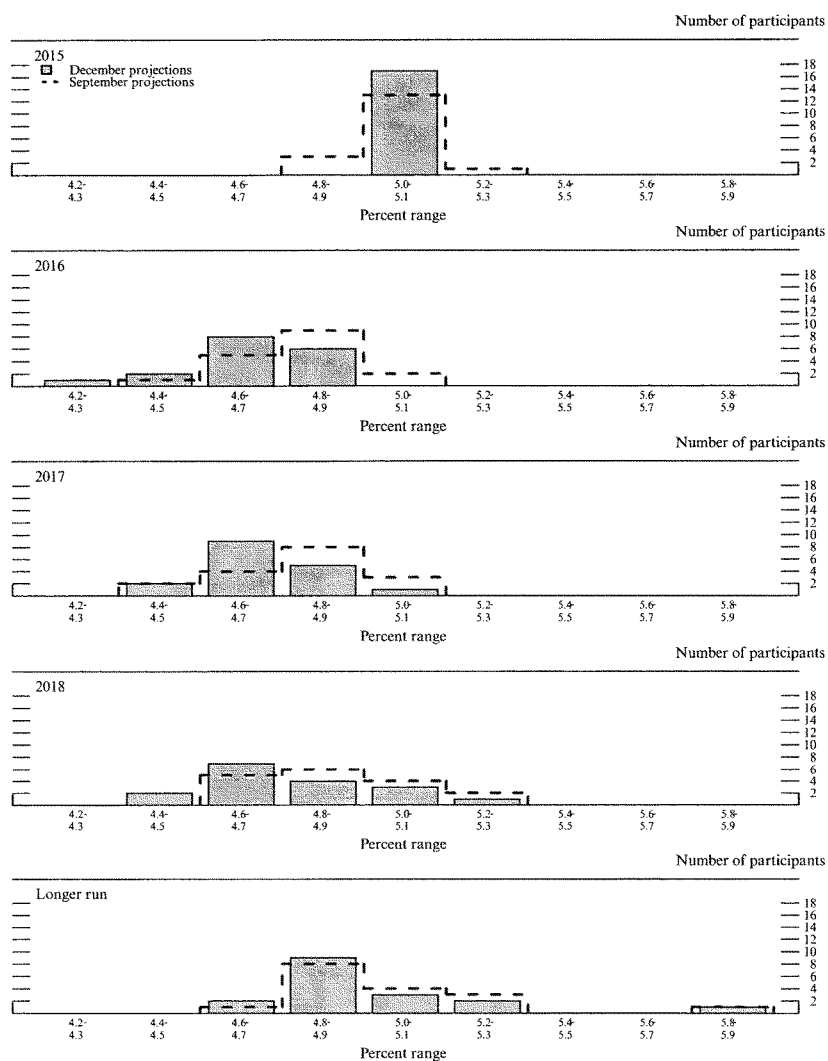
Nearly all participants saw PCE price inflation picking up in 2016, rising further in 2017, and then reaching a rate in 2018 at or very

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2015–18 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2015-18 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

close to the Committee's 2 percent longer-run objective. However, relative to the September SEP, almost all participants marked down their projections for PCE price inflation in 2016, observing that recent declines in energy prices and the continued strength in the dollar could exert additional downward pressure on inflation in the near term. Revisions to participants' inflation forecasts in 2017 were more mixed, while the projections for inflation in 2018 were little changed. Most participants also marked down their projections for core PCE price inflation in 2016, although almost all still expected core inflation to rise gradually over the projection period and to be at or very close to 2 percent by 2018. Factors cited by participants as contributing to their outlook that inflation will rise over the medium term included recent signs of a pickup in wage growth, their expectation of tighter resource utilization, their expectation that the effects of recent appreciation in the dollar and declines in oil prices on inflation will fade, their anticipation that inflation expectations will remain at levels consistent with the FOMC's longer-run objective, and still-accommodative monetary policy.

Figures 3.C and 3.D provide information on the distribution of participants' views about the outlook for inflation. The distribution of participants' projections for PCE price inflation in 2016 and 2017 shifted to the left compared with the September SEP, while the distributions of projections for 2018 and in the longer run were little changed. The distributions of projections for core PCE price inflation moved lower for 2016 and 2017 compared with September but did not change for 2018.

Appropriate Monetary Policy

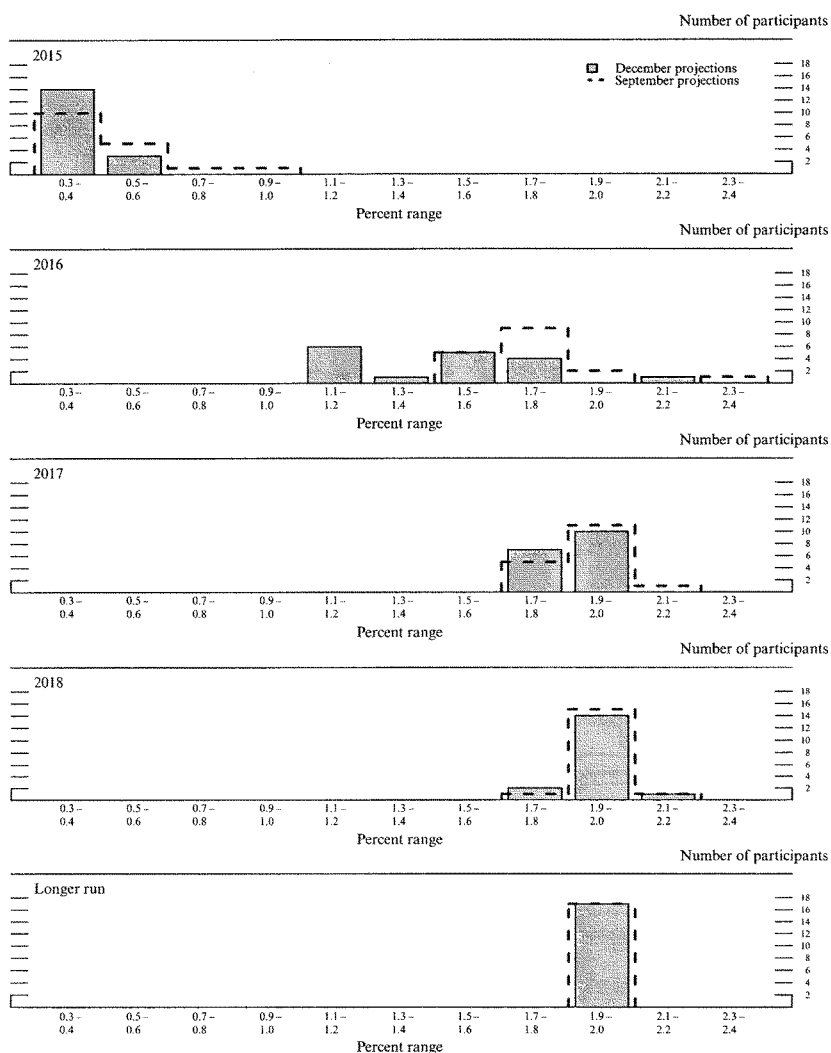
Figure 3.E provides the distribution of participants' judgments regarding the appropriate level of the target federal funds rate at the end of each calendar year from 2015 to 2018 and over the longer run. Relative to September, the projections of the appropriate

levels of the federal funds rate over the next three years generally shifted to lower values. The median projection for next year was unchanged, but the medians for 2017 and 2018 declined slightly. The median projection now stands at 1.4 percent at the end of 2016, 2.4 percent at the end of 2017, and 3.3 percent at the end of 2018. Given their expectations that economic headwinds will persist and that inflation will rise gradually to 2 percent over the next three years, most participants judged that it would be appropriate for the federal funds rate to remain below its longer-run normal level from 2016 to 2018. Participants projected that a gradual rise in the federal funds rate over that period would be appropriate as some of those headwinds, such as sluggish foreign economic growth, diminish and the temporary factors holding down inflation dissipate. Some participants noted that a gradual increase in the federal funds rate would be consistent with their expectation that the neutral short-term real interest rate will rise slowly over the next few years.

Both the median and the range of participants' projections of the federal funds rate in the longer run, at 3.5 percent and 3 to 4 percent, respectively, were unchanged since September. However, several participants revised their projections for the longer-run federal funds rate slightly lower. All participants judged that inflation in the longer run would be equal to the Committee's objective of 2 percent, implying that their individual judgments regarding the appropriate longer-run level of the real federal funds rate, in the absence of further shocks to the economy, ranged from 1 to 2 percent, the same as in September.

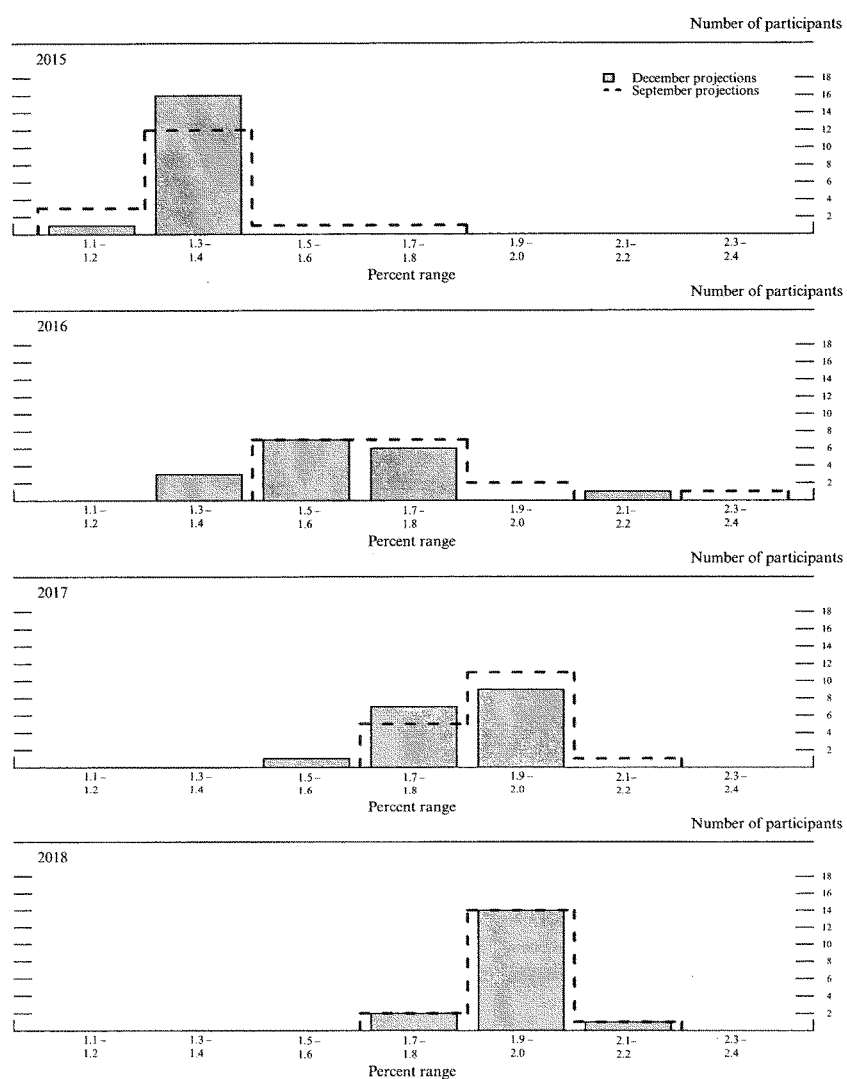
Participants' views of the appropriate path for monetary policy were informed by their judgments about the state of the economy and the outlook for labor markets and inflation. One important consideration for many participants was their estimate of the extent of slack remaining in the labor market, as informed by the incoming data on various labor market indicators. Another

Figure 3.C. Distribution of participants' projections for PCE inflation, 2015–18 and over the longer run



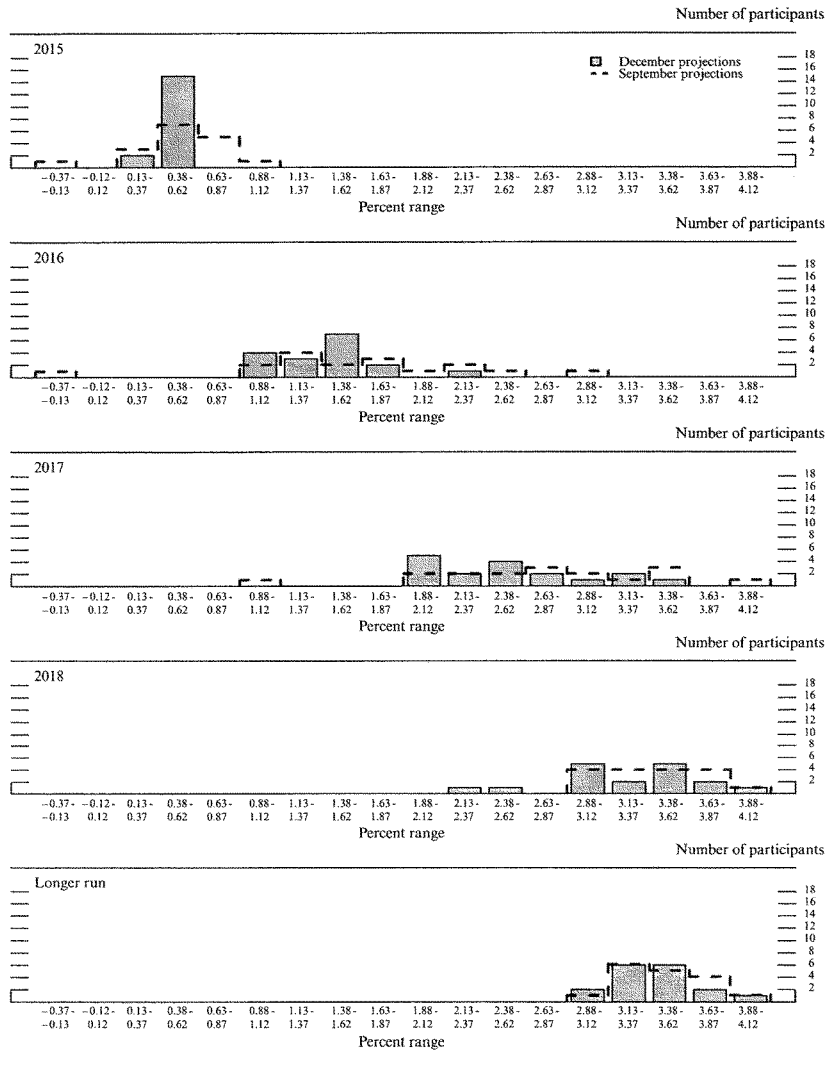
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2015–18



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.E. Distribution of participants' judgments of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate, 2015–18 and over the longer run



NOTE: The midpoints of the target ranges for the federal funds rate and the target levels for the federal funds rate are measured at the end of the specified calendar year or over the longer run.

was prospects for inflation to return to the Committee's objective of 2 percent; in making such assessments, participants considered a range of factors, including measures of inflation compensation and longer-run inflation expectations as well as the likely persistence and size of the effects from low energy prices and the strong dollar. Participants also emphasized the potential for international developments to continue to have important implications for domestic economic activity and inflation and thus for appropriate monetary policy. Several participants discussed potential interactions between policy normalization and risks to financial stability. In addition, given the continued proximity of short-term interest rates to their effective lower bound, asymmetric risks around the outlook for employment and inflation were noted as one reason why a gradual approach to raising the federal funds rate may be appropriate.

Uncertainty and Risks

As in the September SEP, nearly all participants continued to judge the levels of uncertainty around their projections for real GDP growth and the unemployment rate as broadly similar to the average level of the past 20 years (figure 4).⁷ Most participants saw the risks to their outlooks for real GDP growth and unemployment as broadly balanced, as the number of participants who viewed the

7. Table 2 provides estimates of the forecast uncertainty for the change in real GDP, the unemployment rate, and total consumer price inflation over the period from 1995 through 2014. At the end of this summary, the box "Forecast Uncertainty" discusses the sources and interpretation of uncertainty in the economic forecasts and explains the approach used to assess the uncertainty and risks attending the participants' projections.

Table 2. Average historical projection error ranges

Percentage points				
Variable	2015	2016	2017	2018
Change in real GDP ¹	±0.9	±1.8	±2.1	±2.1
Unemployment rate ¹	±0.1	±0.8	±1.4	±1.8
Total consumer prices ²	±0.2	±1.0	±1.0	±1.0

NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections for 1995 through 2014 that were released in the winter by various private and government forecasters. As described in the box "Forecast Uncertainty," under certain assumptions, there is about a 70 percent probability that actual outcomes for real GDP, unemployment, and consumer prices will be in ranges implied by the average size of projection errors made in the past. For more information, see David Reischneider and Peter Tulip (2007), "Gauging the Uncertainty of the Economic Outlook from Historical Forecasting Errors," *Finance and Economics Discussion Series 2007-60* (Washington: Board of Governors of the Federal Reserve System, November), available at www.federalreserve.gov/pubs/feds/2007/200760/200760abs.html; and Board of Governors of the Federal Reserve System, Division of Research and Statistics (2014), "Updated Historical Forecast Errors," memorandum, April 9, www.federalreserve.gov/foia/files/2014/0409-historical-forecast-errors.pdf.

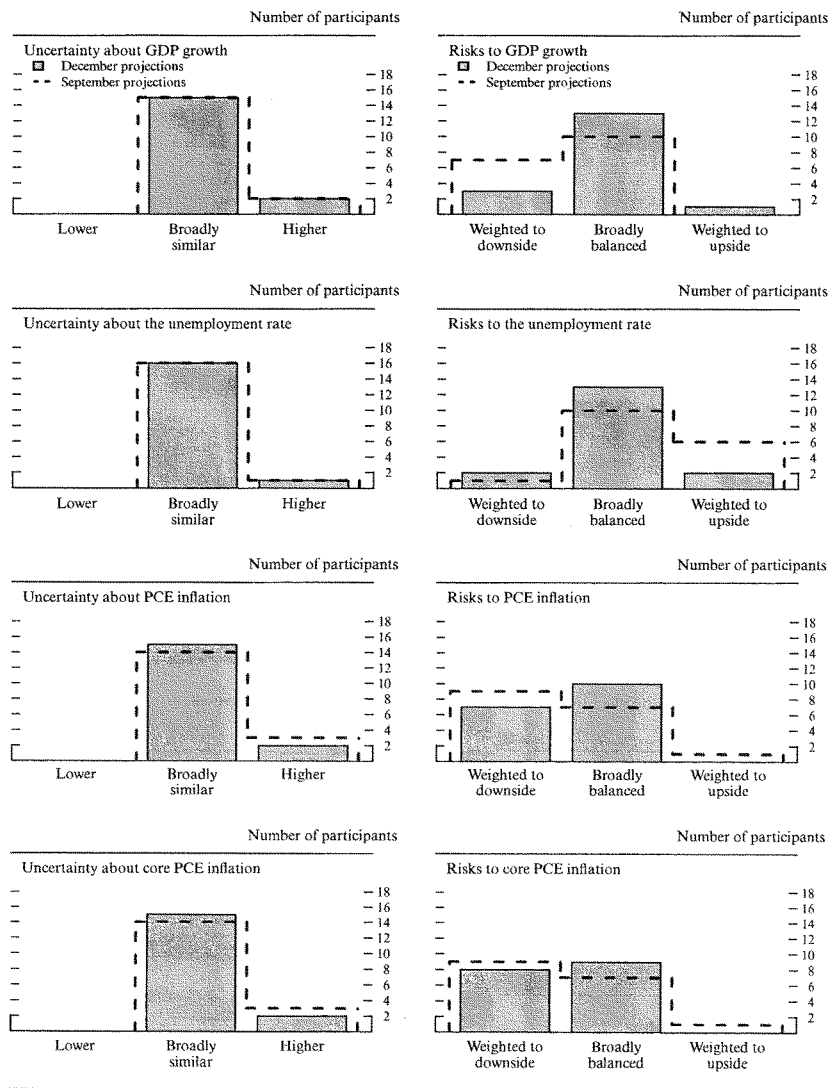
1. Definitions of variables are in the general note to table 1.

2. Measure is the overall consumer price index, the price measure that has been most widely used in government and private economic forecasts. Projection is percent change, fourth quarter of the previous year to the fourth quarter of the year indicated.

risks to economic growth as weighted to the downside and the risks to the unemployment rate as weighted to the upside fell appreciably since September. Diminished risks to domestic economic activity from developments abroad and the strength of recent labor market data were among the reasons noted for the more upbeat assessment of risks.

As in the September SEP, participants generally agreed that the levels of uncertainty associated with their inflation forecasts were broadly similar to the average level over the past 20 years. The number of participants who viewed the risks to their inflation forecasts as weighted to the downside declined slightly since September, and a majority now viewed the risks to both PCE and core PCE inflation as broadly balanced. Among those who saw risks to inflation as tilted to the downside, several highlighted the continued strength of the dollar and some recent indications that inflation expectations had declined as contributing to their perception of those risks.

Figure 4. Uncertainty and risks in economic projections



NOTE: For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty." Definitions of variables are in the general note to table 1.

Forecast Uncertainty

The economic projections provided by the members of the Board of Governors and the presidents of the Federal Reserve Banks inform discussions of monetary policy among policymakers and can aid public understanding of the basis for policy actions. Considerable uncertainty attends these projections, however. The economic and statistical models and relationships used to help produce economic forecasts are necessarily imperfect descriptions of the real world, and the future path of the economy can be affected by myriad unforeseen developments and events. Thus, in setting the stance of monetary policy, participants consider not only what appears to be the most likely economic outcome as embodied in their projections, but also the range of alternative possibilities, the likelihood of their occurring, and the potential costs to the economy should they occur.

Table 2 summarizes the average historical accuracy of a range of forecasts, including those reported in past *Monetary Policy Reports* and those prepared by the Federal Reserve Board's staff in advance of meetings of the Federal Open Market Committee. The projection error ranges shown in the table illustrate the considerable uncertainty associated with economic forecasts. For example, suppose a participant projects that real gross domestic product (GDP) and total consumer prices will rise steadily at annual rates of, respectively, 3 percent and 2 percent. If the uncertainty attending those projections is similar to that experienced in the past and the risks around the projections are broadly balanced, the numbers reported in table 2 would imply a probability of about 70 percent that actual GDP would expand within a range of 2.1 to 3.9 percent in the current year, 1.2 to

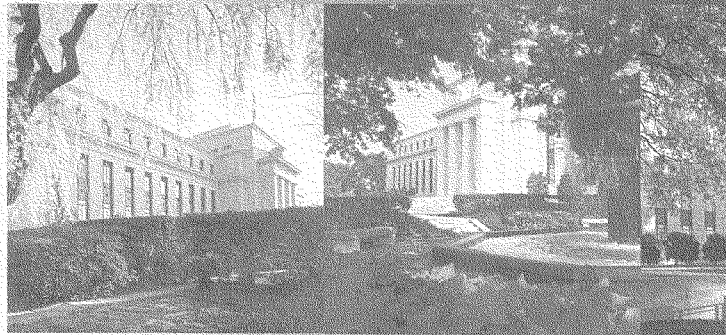
4.8 percent in the second year, and 0.9 to 5.1 percent in the third and fourth years. The corresponding 70 percent confidence intervals for overall inflation would be 1.8 to 2.2 percent in the current year, and 1.0 to 3.0 percent in the second, third, and fourth years.

Because current conditions may differ from those that prevailed, on average, over history, participants provide judgments as to whether the uncertainty attached to their projections of each variable is greater than, smaller than, or broadly similar to typical levels of forecast uncertainty in the past, as shown in table 2. Participants also provide judgments as to whether the risks to their projections are weighted to the upside, are weighted to the downside, or are broadly balanced. That is, participants judge whether each variable is more likely to be above or below their projections of the most likely outcome. These judgments about the uncertainty and the risks attending each participant's projections are distinct from the diversity of participants' views about the most likely outcomes. Forecast uncertainty is concerned with the risks associated with a particular projection rather than with divergences across a number of different projections.

As with real activity and inflation, the outlook for the future path of the federal funds rate is subject to considerable uncertainty. This uncertainty arises primarily because each participant's assessment of the appropriate stance of monetary policy depends importantly on the evolution of real activity and inflation over time. If economic conditions evolve in an unexpected manner, then assessments of the appropriate setting of the federal funds rate would change from that point forward.

ABBREVIATIONS

AFE	advanced foreign economy
BHC	bank holding company
CDS	credit default swap
CMBS	commercial mortgage-backed securities
CRE	commercial real estate
EME	emerging market economy
FOMC	Federal Open Market Committee; also, the Committee
GDP	gross domestic product
MBS	mortgage-backed securities
ON RRP	overnight reverse repurchase agreement
OPEC	Organization of the Petroleum Exporting Countries
PBOC	People's Bank of China
PCE	personal consumption expenditures
SEP	Summary of Economic Projections
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account



Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Fincher:

1. The Basel Committee just finalized new trading book capital rules in January. I understand these rules were never intended to increase or decrease capital requirements, yet the final rule you endorsed last month will result in a 40% increase in capital requirements. I understand the Basel Committee conducted a number of impact studies, but can you commit that the Fed will conduct its own impact study with cost-benefit analysis and share the results with this committee prior to implementing it in the United States? Will the Fed consider recalibrating or deviating from this international agreement in any way if your own results demonstrate the rule's costs exceeds any incremental benefit it provides to financial stability or the safety and soundness of individual institutions?

Given large trading losses some banks sustained during the financial crisis, the Basel Committee issued revised standards in 2009 to raise capital requirements for market risks. These revised standards, supplemented in 2010, roughly tripled the capital of banks that used internal models held against market risk, but did not change the basic framework of the market risk capital rules.

The Basel Committee on Banking Supervision (BCBS) began the Fundamental Review of the Trading Book (FRTB) in 2011 to address some of the shortcomings in the structure of the market risk capital rules. Last year the industry commented about the calibration of certain aspects of the revised market risk capital rules. The BCBS addressed outstanding issues on calibration before publication of the final rule in January. The BCBS will be monitoring any undesired increase in capital that could impact market liquidity during the implementation period.

The 40 percent figure cited is the weighted average increase in total capital across all banks under the revised market risk rule. The final decisions on the calibration, however, were not based on this figure. Rather they were based on an estimated increase in these capital requirements of 20 percent for the median large global trading bank. The overall increase in capital for U.S. banks was estimated to be considerably less than the weighted average increase.

Estimating the impact of the new standards entailed an extensive data collection from banks on a voluntary basis that tested proposed standards set forth in a consultative document. The data quality varied considerably among the banks' submissions and there were clear outliers. For this reason, the median was viewed as a more appropriate metric than the weighted average. Moreover, given the data quality issues, supervisors felt some increase in capital was appropriate to ensure the new standards were calibrated to a prudential level. In addition, the new standards for modeled market risk require that a bank's measure of risk exposure against which capital is held includes risk factors that a bank does not model well. In most countries, current standards do not require such a formal inclusion, but rather a supervisory assessment. The requirement for a formal inclusion under the new standard played a significant role in the increase of capital requirements for a number of banks.

It is important to bear in mind that an increase in weighted average capital requirements does not translate into an increase for any particular bank. Some banks showed an increase in capital requirements, while others showed a decrease. The variability in outcomes underscores the lack

of precision of the capital change estimates collected in Basel quantitative impact studies arising in part from differences in the capability of various banks' systems to capture the necessary data.

Before adopting a standard for revised trading book capital requirements, the Federal Reserve, Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation will issue a domestic Notice of Proposed Rulemaking for public comment. That notice will describe the costs and benefits of the proposed rules and identify areas where these considerations may not be balanced for U.S. banks.

We recognize that bank holdings of capital market instruments can be very sensitive to regulatory capital requirements and that it is important to maintain market liquidity as we promote financial stability. We are committed to ensuring that the new framework will not unduly disrupt smooth functioning of the capital markets. And we would not adopt any changes to the Fed's rules on market risk capital requirements without going through the U.S. comment process.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Hill:

1. In your testimony, you referenced “a range of persistent economic headwinds—such as limited access to credit for some borrowers, weak growth abroad, and a significant appreciation of the dollar.” Further, we have had seven years of unprecedented low interest rates and exceptional monetary accommodation. The benefits of this “zero interest rate” environment have run their course. The long-term negative consequences are clear: wealth inequality increasing, asset prices driven up, misallocation of resources, lack of a dependable market risk indicator, punishing of families trying to live on modest savings and social security.

In short, we have sustained poor growth. Recently Dr. William Poole, former President of the Federal Reserve Bank of St. Louis, wrote a thoughtful piece in *The Wall Street Journal*, and his premise echoed the questions in this hearing in exploring the topic “persistent economic headwinds.” In my view, the U.S. economy is facing substantial, non-monetary structural impediments to accelerated economic growth. Dr. Poole makes the suggestion that these non-monetary policy, structural impediments should be studied by the Federal Reserve staff.

Has the Federal Reserve formally studied these non-monetary policy structural impediments? If not, could you commit to such a study that considers such factors including the level of federal debt (to GDP and the current and potential impact of “crowding out”), tax policy, the level of federal intervention in the capital markets (impacts of Dodd-Frank provisions, Basel III regulations, and the Volcker Rule), the level of federal intervention in the labor markets (impacts of the Department of Labor rulings on compensation, benefits, overtime, etc. and Affordable Care Act mandates)?

The United States has come much further in recovering from the Great Recession than have many other countries, and the evidence overwhelmingly indicates that the Federal Reserve’s accommodative monetary policy during the past several years has been an essential force supporting this recovery. Today, the unemployment rate in the United States, at 4.9 percent, is roughly half of what it was during the worst of the Great Recession. For sure, some sectors of the economy and regions of the country have yet to fully recuperate, and many families still have not felt the benefits of a strong recovery. But the Congress has charged the Federal Reserve with promoting the overall macroeconomic health of the U.S. economy, and our monetary policy since the financial crisis has been effective in promoting a stronger labor market that is benefiting all population groups.

Structural impediments to growth are relevant for the long-term performance of the economy, and they may play a role in explaining why the growth of gross domestic product has been as sluggish as it has been since the onset of the financial crisis. In addition, we do consider many of the factors you listed in judging the longer run sustainable growth rate of the economy through their effects on labor market performance, productivity and business investment. But our monetary policy mandate, as given to us by the Congress, is to pursue maximum employment and price stability. The labor market is much closer now to fulfilling the condition of maximum employment than it has been in years. The Federal Open Market Committee (FOMC) has

interpreted “price stability” as corresponding to 2 percent inflation as measured by the price index for personal consumption expenditures. As I mentioned in my testimony, inflation has fallen short of the Federal Reserve’s 2 percent objective, on average, in recent years; but the FOMC judged, in December 2015 when it first raised the federal funds rate above from the range that it had occupied for several years, that the Committee was “reasonably confident that inflation will rise, over the medium term, to its 2 percent objective.” Essentially by definition, structural impediments to growth are most relevant to the secular or trend growth of the economy over longer periods of time. In conducting monetary policy, the job of the Federal Reserve is to focus, first and foremost, on the cyclical fluctuations in economic output around its trend, and on the fluctuations in inflation around its 2 percent objective. That strategy is proven quite successful in helping to promote the economic recovery in a context of price stability.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Hultgren:

1. I have expressed concern with the supplementary leverage ratio's treatment of federal reserve deposits. You have described it as a "back-up" ratio in your testimony before the House Financial Services Committee, but that does not appear to be how the rule functions in the real world.

You committed to both Congressman Rothfus and I that our concerns at minimum deserve further consideration by the Federal Reserve. During a February 10, 2016, hearing of the House Financial Services Committee you stated, "We have heard of the problem and I will address it," and "You know, it's something we can look at, but it was considered."

While you have described the Supplementary Leverage Ratio as the "back-up ratio", this and the standardized leverage ratio have or are becoming binding capital constraints for custody banks, due to their highly liquid, low risk balance sheets that support client needs. In light of your commitment to address these concerns, will the Federal Reserve Board consider adjusting the capital requirements for excess cash deposits held with the Federal Reserve? What opportunity will there be for input from the public?

The supplementary leverage ratio rule (SLR rule) adopted by the Federal Reserve, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation (the Agencies), requires internationally-active banking organizations to hold at least 3 percent of total leverage exposure in tier 1 capital. The rule calculates total leverage exposure as the sum of certain off-balance sheet items and all on-balance sheet assets.¹ The on-balance sheet portion does not take into account the level of risk of each type of exposure and includes cash. As designed, the SLR rule requires a banking organization to hold a minimum amount of capital against on-balance sheet assets and off-balance sheet exposures, regardless of the risk associated with the individual exposures. This leverage requirement is designed to recognize that the risk a banking organization poses to the financial system is a factor of its size as well as the composition of its assets. Excluding select categories of on-balance sheet assets, such as cash, from total leverage exposure would generally be inconsistent with this principle.

The Agencies understand the concern that certain custody banks, which act as intermediaries in high-volume, low-risk, low-return financial activities, may experience increases in assets as a result of macroeconomic factors and monetary policy decisions, particularly during periods of financial market stress.² Because the SLR rule is not a risk-based measure, it is possible banking organizations' costs of holding low-risk, low-return assets, such as deposits, could increase if such ratio were to become the binding regulatory capital constraint. However, when choosing an appropriate asset profile, banking organizations consider many factors in addition to regulatory capital requirements, such as yields available relative to the overall cost of funds, the need to

¹ See 79 Fed. Reg. 57725 (September 26, 2014), available at <http://www.gpo.gov/fdsys/pkg/FR-2014-09-26/pdf/2014-22083.pdf>.

² The agencies have reserved authority under the capital rule to require a banking organization to use a different asset amount for an exposure included in the SLR to address extraordinary situations. See 12 CFR 3.1(d)(4) (OCC); 12 CFR 217.1(d)(4) (Federal Reserve); 12 CFR 324.1(d)(4) (FDIC).

preserve financial flexibility and liquidity, revenue generation, the maintenance of market share and business relationships, and the likelihood that principal will be repaid.

Regulatory requirements established by the Federal Reserve since the financial crisis are meant to address risks to which banking organizations are exposed, including the risks associated with funding in the form of cash deposits. The requirements are designed to increase the resiliency of banking organizations, enabling them to continue serving as financial intermediaries for the U.S. financial system and as sources of credit to household and businesses during times of stress. The SLR requirement and the enhanced SLR standards do not become effective until January 1, 2018. According to public disclosures of firms subject to these requirements, the custody banks and other global systemically important banks have made significant progress in complying with the enhanced SLR requirements.

Federal Reserve Board (Board) staff have held meetings with and reviewed materials prepared by the custody banks in connection with the implementation of the SLR rule. The Board continuously considers potential improvements to its regulations based on feedback from affected parties and the general public, but is not actively considering making any modifications to the SLR rule at this time. Any future changes to the Board's regulations would take public comments into account in a manner consistent with U.S. law and the administrative rulemaking process.

2. I understand the Federal Reserve already applies existing Customer Identification Program (CIP) requirements to all subsidiaries of the banks they supervise, including premium finance companies. Would a more nuanced approach for application of these requirements be appropriate for subsidiaries that pose little risk for money laundering or terrorism financing? What risk is posed, if any, by bank-owned premium finance companies?

Will the Federal Reserve confirm that it will not apply further CIP requirements (if such rules become final) to the insurance premium finance industry until the Federal Reserve and the Financial Crimes Enforcement Network (FinCEN) demonstrate they will prevent terrorism financing and money laundering? Absent such confirmation, please explain the rationale, if any, for application of incremental CIP requirements to bank-owned insurance premium finance companies.

We understand the concerns that have been raised by some in the insurance premium finance industry regarding the requirement to collect customer identification information under the Bank Secrecy Act (BSA). In 2003, the Financial Crimes Enforcement Network (FinCEN) and the federal banking agencies issued an interagency Customer Identification Program (CIP) rule implementing section 326 of the USA PATRIOT Act. The CIP rule requires banks and other financial institutions to form a reasonable belief regarding a customer's identity when opening an account.³ The CIP rule applies to any "formal banking relationship established to provide or engage in services, dealings, or other financial transactions including a deposit account, a transaction or asset account, a credit account, or other extension of credit."⁴ Importantly, the CIP

³ 31 CFR §1020.100(c), (a).

⁴ 31 CFR § 103.121(a)(i).

rule does not exempt accounts established for the purpose of insurance premium financing. The CIP rule applies equally to banks and their subsidiaries when opening an account within the meaning of the rule.⁵

The requirements of the CIP rule are typically satisfied by adopting risk-based procedures at account opening that enable the bank to verify the customer's identity to the extent reasonable and practicable. First, a bank's CIP must obtain a name, date of birth, address, and identification number from a customer who is an individual.⁶ Second, the bank must adopt identity verification procedures that describe when and how the bank will verify the customer's identity using documentary or non-documentary methods.⁷ Finally, the CIP rule has specific account recordkeeping and notice requirements.⁸ The procedures used by the Federal Reserve and other banking agencies to examine a bank's compliance with the CIP rule are identified in the BSA/Anti-Money Laundering (AML) manual published by the Federal Financial Institutions Examination Council (FFIEC) member agencies.⁹

In 2014, separate from the CIP rule, FinCEN issued a proposed rule that establishes customer due diligence (CDD) requirements for banks and other financial institutions with obligations under the BSA. As proposed, the CDD rule requires banks to identify the beneficial owner(s) of any legal entity customer who opens an "account" within the meaning of the CIP rule. Although the proposed CDD rule exempts certain customers, these exemptions do not extend to customers who establish an insurance premium financing relationship with a bank or its subsidiary. The Federal Reserve does not have the authority to exempt insurance premium finance companies from any increased costs associated with FinCEN's proposed CDD rule. The Federal Reserve's responsibility is limited to examining banks under its supervision for compliance with the CDD rule once FinCEN reaches its final determination. Indeed, only FinCEN retains the authority to determine whether the final CDD rule will apply to the insurance premium financing industry.

3. On November 5, 2015, FDIC Vice Chairman Thomas Hoenig provided remarks to the 18th Annual International Banking Conference at the Federal Reserve Bank of Chicago. During his prepared remarks, entitled "Post-Crisis Risks and Bank Equity Capital," Mr. Hoenig stated, regarding the Federal Reserve's proposal to increase minimum debt requirements, "A question we must ask, then, is whether the effect of such a requirement that is designed to make a firm more resolvable once that firm has failed, could -- prior to failure -- increase the firm's leverage and thereby its likelihood to default. Our goal to prevent failure should be every bit as important as resolving failed firms."

Taking into account Mr. Hoenig's statement as well as the long term debt requirements under the Federal Reserve's recently proposed Total Loss Absorbing Capacity rules, do

⁵ Interagency Interpretive Guidance on Customer Identification Program Requirements under section 326 of the USA PATRIOT Act, FAQs Final CIP Rule (April 28, 2005).

⁶ 31 CFR § 1020.220(a)(2)(i).

⁷ 31 CFR § 1020.220(a)(2)(ii).

⁸ 31 CFR § 1020.220(a)(3) and (a)(5).

⁹ See generally, FFIEC, BSA/AML Examination Manual (2014) (available at: https://www.ffiec.gov/bsa_aml_infobase/pages_manual/manual_online.htm). The FFIEC member agencies include the Federal Deposit Insurance Corporation, National Credit Union Administration, Office of the Comptroller of the Currency, and the Consumer Financial Protection Bureau, as well as the Federal Reserve Board.

you believe that the Fed has overlooked the “prevention of failure” as described by Mr. Hoenig and is instead placing unnecessary stress on financial institutions that could in fact lead to failure itself? Can you let the committee know what steps the FRB is taking in light of Mr. Hoenig’s concerns?

The Federal Reserve is committed to improving the resolvability and resiliency of global systemically important banks (GSIBs) and to limiting the systemic damage that would result if a large financial institution were to fail. GSIBs are central intermediaries in the U.S. financial market, and their failure or distress would thus likely cause the most harm to the financial system. The preamble to the Federal Reserve’s Total Loss-Absorbing Capacity (TLAC) proposal acknowledges the importance of each of these two complementary objectives to the Dodd-Frank Wall Street Reform and Consumer Protection Act’s broader goal of protecting U.S. financial stability and ending “too big to fail.” See 80 FR 74926, 74926–74928.

The TLAC proposal’s long-term debt requirement should not increase the likelihood that a banking organization that is subject to the proposed rule would fail. First, the Federal Reserve expects that the GSIBs would generally come into compliance with the long-term debt requirement without increasing their leverage or the size of their balance sheets, mostly by moving long-term debt that is currently outstanding from the GSIBs’ bank subsidiaries to their holding companies, and by extending the maturity of existing debt. Second, the Federal Reserve has in place robust risk-based and leverage capital requirements, including a risk-based capital surcharge for the U.S. GSIBs, that are intended to keep the likelihood that a GSIB will fail at a very low level.¹⁰ The TLAC proposal would not weaken or override any of these important capital requirements.

Indeed, the TLAC proposal’s long-term debt requirement should increase the resilience of the covered firms and thus decrease the likelihood that one of them would fail. Each covered firm would be required to maintain outstanding a substantial amount of eligible long-term debt, and the holders of that debt—rather than the short-term unsecured creditors of the covered firm’s operating subsidiaries—would absorb the banking organization’s losses in resolution. This requirement would give the entities that invest in a firm’s eligible long-term debt strong incentives to impose market discipline on the firm, deterring it from taking excessive risks that could lead to failure. The requirement would also reduce the risk that the covered firm would experience a destabilizing run, because the holders of the long-term debt (which is not runnable) would absorb losses ahead of the operating subsidiaries’ runnable short-term creditors, meaning that those short-term creditors would have diminished incentives to run in the first place. Thus, the TLAC proposal advances the goal of improving the resolvability and resiliency of GSIBs as well as the goal of reducing the harm that a GSIB failure would do to U.S. financial stability.

The period for public comment on the TLAC proposal has now closed, and the Federal Reserve is carefully considering all of the comments that have been submitted. As the Federal Reserve considers these comments and determines how to move forward with the proposal, it will continue to place great weight on ensuring the safety and soundness of the U.S. financial system.

¹⁰ See 80 FR 49082; Board of Governors of the Federal Reserve System, “Calibrating the GSIB Surcharge” (July 20, 2015), available at www.federalreserve.gov/aboutthefed/boardmeetings/gsib-methodology-paper-20150720.pdf.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Luetkemeyer:

1. The Fed's criteria for applying the Basel Advanced Approaches Capital requirements and the Liquidity Coverage Ratio (LCR) is \$250 billion or more in assets or \$10 billion or more in foreign exposures. These criteria were devised as part of Basel II in 2005, more than 10 years ago. As a result, the Advanced Approaches and the LCR apply to an entirely different group of institutions than the criteria originally captured. Has the Fed undertaken any assessment to determine if the \$250 billion and \$10 billion criteria are appropriate for the Advanced Approaches and the LCR, either on an individual firm basis or revising the thresholds entirely?

The Federal Reserve Board (Board) is committed to ensuring that our regulations are appropriately tailored to the size and risk profile of regulated institutions. The Board has assessed the thresholds used to determine the scope of applicability of its regulations, including the advanced approaches capital requirements and the Liquidity Coverage Ratio (LCR) rule, to be appropriate for the idiosyncratic and systemic risks those regulations are meant to address. The thresholds of \$250 billion or more in total consolidated assets or \$10 billion or more in on-balance sheet foreign exposure capture those banking organizations that are the largest and most complex in the U.S. financial system and thus, those that pose the most systemic risk. The fact that the thresholds capture different firms than in 2005 reflects changes in the profiles of those firms. The Board continues to monitor the scope of applicability of the advanced approaches capital requirements, LCR rule, and its other regulations.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Luetkemeyer:

2. With respect to the Basel Advanced Approaches Capital requirements, would you support the Fed providing exempt relief for companies where their cost of compliance greatly exceeds their benefits? If so, how would you make that determination?

Under the regulatory capital rules, promulgated by the Federal Reserve, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation (the Agencies), internationally active banking organizations (specifically, those with total consolidated assets of \$250 billion or more, or with consolidated total on-balance-sheet foreign exposure of \$10 billion or more) must calculate risk-based capital using the advanced approaches risk-based capital rules (the advanced approaches rule) in addition to the standardized approach. Section 100(b)(2) of the regulatory capital rules provides that a banking organization subject to the advanced approaches rule shall remain subject to that rule until the primary federal regulator determines that application of the advanced approaches rule is not appropriate in light of the banking organization's size, level of complexity, risk profile, or scope of operations. In making such a determination, the primary federal regulator must apply notice and response procedures.¹ The primary federal regulator may also set conditions on the granting of the waiver as appropriate, and any waiver granted must be consistent with safety and soundness. The capital adequacy of a banking organization that meets the thresholds described above, but has received a waiver from application of the advanced approaches rules would be addressed by standardized risk-based capital rules, leverage rules, and capital planning and supervisory stress-testing requirements.

3. While the Federal Reserve Board has described the Supplementary Leverage Ratio as the "back-up ratio", this and the standardized leverage ratio have or are becoming binding capital constraints for custody banks, due to their highly liquid, low risk balance sheets that support client needs. In light of this concern, will the Federal Reserve Board consider adjusting the capital requirements for excess cash deposits held with the Federal Reserve?

The supplementary leverage ratio rule (SLR rule) adopted by the Agencies, requires internationally-active banking organizations to hold at least 3 percent of total leverage exposure in tier 1 capital. The rule calculates total leverage exposure as the sum of certain off-balance sheet items and all on-balance sheet assets.² The on-balance sheet portion does not take into account the level of risk of each type of exposure and includes cash. As designed, the SLR rule requires a banking organization to hold a minimum amount of capital against on-balance sheet assets and off-balance sheet exposures, regardless of the risk associated with the individual exposures. This leverage requirement is designed to recognize that the risk a banking organization poses to the financial system is a factor of its size as well as the composition of its assets. Excluding select categories of on-balance sheet assets, such as cash, from total leverage exposure would generally be inconsistent with this principle.

¹ 12 CFR 3.404 (Office of the Comptroller of the Currency), 12 CFR 263.202 (Federal Reserve), and 12 CFR 324.5 (Federal Deposit Insurance Corporation).

² See 79 Fed. Reg. 57725 (September 26, 2014), available at <http://www.gpo.gov/fdsys/pkg/FR-2014-09-26/pdf/2014-22083.pdf>.

The Agencies understand the concern that certain custody banks, which act as intermediaries in high-volume, low-risk, low-return financial activities, may experience increases in assets as a result of macroeconomic factors and monetary policy decisions, particularly during periods of financial market stress.³ Because the SLR rule is not a risk-based measure, it is possible banking organizations' costs of holding low-risk, low-return assets, such as deposits, could increase if such ratio were to become the binding regulatory capital constraint. However, when choosing an appropriate asset profile, banking organizations consider many factors in addition to regulatory capital requirements, such as yields available relative to the overall cost of funds, the need to preserve financial flexibility and liquidity, revenue generation, the maintenance of market share and business relationships, and the likelihood that principal will be repaid.

Regulatory requirements established by the Federal Reserve since the financial crisis are meant to address risks to which banking organizations are exposed, including the risks associated with funding in the form of cash deposits. The requirements are designed to increase the resiliency of banking organizations, enabling them to continue serving as financial intermediaries for the U.S. financial system and as sources of credit to household and businesses during times of stress. The SLR requirement and the enhanced SLR standards do not become effective until January 1, 2018. According to public disclosures of firms subject to these requirements, the custody banks and other global systemically important banks have made significant progress in complying with the enhanced SLR requirements.

Federal Reserve Board (Board) staff have held meetings with and reviewed materials prepared by the custody banks in connection with the implementation of the SLR rule. The Board continuously considers potential improvements to its regulations based on feedback from affected parties and the general public, but is not actively considering making any modifications to the SLR rule at this time. Any future changes to the Board's regulations would take public comments into account in a manner consistent with U.S. law and the administrative rulemaking process.

4. In a recent written response to Congress on the insurance capital issue, you wrote that the Federal Reserve Board will consider a congressional suggestion regarding a baseline approach that would rely in part on the state risk-based capital framework. You also wrote that the Board now has the authority to exclude insurance operations from its consolidated capital requirements pursuant to the Collins Amendment. Will you please be more specific about your plans to rely on the state risk-based capital framework for insurance companies? How fully will you rely on the state regime for the insurance operations of federally supervised insurers?

You are correct to note that, in developing our domestic insurance regulatory capital requirements, the Board has greater flexibility to tailor these requirements to the business of insurance through the Insurance Capital Standards Clarification Act of 2014, which gave the Board the authority to exclude regulated insurance companies when establishing minimum consolidated risk-based capital requirements for supervised insurance savings and loan holding companies and nonbank financial companies.

³ The Agencies have reserved authority under the capital rule to require a banking organization to use a different asset amount for an exposure included in the SLR to address extraordinary situations. See 12 CFR 3.1(d)(4) (OCC); 12 CFR 217.1(d)(4) (Federal Reserve); 12 CFR 324.1(d)(4) (FDIC).

We leverage the work of state insurance regulators where possible. The Federal Reserve's consolidated supervision supplements existing state based legal-entity supervision, which focuses on policyholder protection, with a perspective that considers the risks across the entire firm.

It would be premature for me to comment on how we will treat the unique risks of certain insurance lines, mix of business and the like, before the Board has fully considered its potential options for consolidated capital frameworks, and we are in the process of doing just that through careful deliberations. To that end, in our consolidated supervision of insurance firms, the Board remains committed to tailoring our supervisory approach, including a domestic regulatory capital framework and other insurance prudential standards, to the business of insurance, reflecting insurers' different business models and systemic importance compared to other firms supervised by the Board. Moreover, we are committed to a formal rulemaking process in the development of insurance capital requirements.

5. You have indicated that you were not positive as to whether or not one capital rule would apply to all insurance companies subject to supervision by the Federal Reserve Board. You suggested that firm-specific rules might apply to those insurers designated as nonbank SIFIs. Please clarify the Federal Reserve Board's plan in this regard. What sort of firm-specific rules will nonbank SIFI insurers face and how will those rules be applied? Without going into specifics as to the Board's plans for each firm, what issues will the rules address, e.g., capital and/or stress testing? Will any firm-specific rules be imposed by order exposed for public comment rather than traditional rulemaking?

As I have noted, it would be premature for me to comment on how we will treat insurers' unique risks, in the development of consolidated capital requirements for supervised insurance nonbank financial companies, before the Board has fully considered its potential options. The Board's consolidated supervision supplements existing legal-entity supervision with a perspective that considers the risks across the entire firm. The Board's role in monitoring and mitigating risks to financial stability seeks to ensure, as appropriate, that supervised insurance firms remain solvent as going concerns, maintain their positions as financial intermediaries even in times of stress, and are resolvable in a manner that is not destabilizing to the financial system if resolution is required. Together with the capital framework that the Board determines for supervised insurance nonbank financial companies, the Board intends to conduct stress tests, as prescribed under the Dodd-Frank Wall Street-Reform and Consumer Protection Act (Dodd-Frank Act), which will be appropriately tailored to the business of insurance and the insurance companies' solvency under stress conditions. These will be designed in coordination with the Federal Insurance Office as specified under the Dodd-Frank Act. As we develop the stress testing framework, we will determine the appropriate treatment of circumstances concerning the individual company and the financial system. Moreover, with regard to the insurance capital rules that the Board develops and applies, we are committed to a formal rulemaking process.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Lynch:

1. As you know, last year I, along with Congressman Capuano and most of the Massachusetts Delegation, wrote to the Fed, the OCC and the FDIC on the regulation that requires custody banks to maintain a 6 percent enhanced supplemental leverage ratio to be considered well capitalized, even on custody cash funds deposited with the Federal Reserve banks. In your response letter dated December 21, 2015, The Fed and the other two agencies said: "The agencies understand the concern that certain custody banks, which act as intermediaries in certain high-volume, low-risk, low-return financial activities may experience increases in assets as a result of macroeconomic factors and monetary policy decisions, particularly during times of financial market stress. Because the SLR is not a risk-based measure, it is possible that banking organizations' cost of holding low-risk low-return assets such as deposits could increase if this ratio were to become the binding regulatory capital constraint". The custody banks are telling me the leverage ratio *has* become the binding capital constraint for custody banks, due to their highly liquid, low risk balance sheets. Can you assure me the Fed will work with the other regulatory bodies and the custody banks to alleviate this concern? I don't think anyone wants to experience a crisis scenario where custody banks cannot accept their clients cash deposits, cash that would be deposited in the federal reserve system.

The supplementary leverage ratio rule (SLR rule) adopted by the Federal Reserve, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation (the Agencies), requires internationally-active banking organizations to hold at least 3 percent of total leverage exposure in tier 1 capital. The rule calculates total leverage exposure as the sum of certain off-balance sheet items and all on-balance sheet assets.¹ The on-balance sheet portion does not take into account the level of risk of each type of exposure and includes cash. As designed, the SLR rule requires a banking organization to hold a minimum amount of capital against on-balance sheet assets and off-balance sheet exposures, regardless of the risk associated with the individual exposures. This leverage requirement is designed to recognize that the risk a banking organization poses to the financial system is a factor of its size as well as the composition of its assets. Excluding select categories of on-balance sheet assets, such as cash, from total leverage exposure would generally be inconsistent with this principle.

The Agencies understand the concern that certain custody banks, which act as intermediaries in high-volume, low-risk, low-return financial activities, may experience increases in assets as a result of macroeconomic factors and monetary policy decisions, particularly during periods of financial market stress.² Because the SLR rule is not a risk-based measure, it is possible banking organizations' costs of holding low-risk, low-return assets, such as deposits, could increase if such ratio were to become the binding regulatory capital constraint. However, when choosing an appropriate asset profile, banking organizations consider many factors in addition to regulatory capital requirements, such as yields available relative to the overall cost of funds, the need to

¹ See 79 Fed. Reg. 57725 (September 26, 2014), available at <http://www.gpo.gov/fdsys/pkg/FR-2014-09-26/pdf/2014-22083.pdf>.

² The agencies have reserved authority under the capital rule to require a banking organization to use a different asset amount for an exposure included in the SLR to address extraordinary situations. See 12 CFR 3.1(d)(4)(OCC); 12 CFR 217.1(d)(4) (Federal Reserve); 12 CFR 324.1(d)(4) (FDIC).

preserve financial flexibility and liquidity, revenue generation, the maintenance of market share and business relationships, and the likelihood that principal will be repaid.

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Federal Reserve Board (Board) staff have held meetings with and reviewed materials prepared by the custody banks in connection with the implementation of the SLR rule. The Board continuously considers potential improvements to its regulations based on feedback from affected parties and the general public, but is not actively considering making any modifications to the SLR rule at this time. Any future changes to the Board's regulations would take public comments into account in a manner consistent with U.S. law and the administrative rulemaking process.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Messer:

1. Chair Yellen, In November, you claimed before this committee that the Fed is studying the consequences of all the new regulations on the economy “very closely” including the impact on market liquidity. Now European regulators are actually doing a formal review. Given that many of our own rules have gone farther than international standards, isn’t it time for a formal review of the cumulative impact of the new rules here in the United States?

The Federal Reserve conducts a variety of economic analyses and assessments to support the rulemaking process. For instance, the Federal Reserve included economic cost and impact assessments in its margin trading and Total Loss-Absorbing Capacity proposals. As these proposals relate to a specific regulation or requirement, the impact analyses naturally focus on the impact of the specific regulation in question, though impact and cost estimates can generally be aggregated across different regulatory initiatives. More broadly, the Federal Reserve engages in a regular quantitative impact assessment and monitoring program that is coordinated with other global regulators through the Basel Committee on Banking Supervision (BCBS) to assess the overall impact of prudential capital and liquidity requirements. This impact assessment has been conducted and made public regularly since 2012, and it continues to inform the Federal Reserve’s understanding of the cost and impact of capital and liquidity regulation.

Additionally, the Federal Reserve participates in a global effort through its participation on the Financial Stability Board and the BCBS’s Macroeconomic Assessment Group. The Macroeconomic Assessment Group published a study in 2010 that assessed the overall macroeconomic impact of stronger capital and liquidity requirements.

The Federal Reserve seriously considers the overall cost and benefit of all of the regulations it promulgates. The overarching goal of the Federal Reserve’s regulatory program is to enhance financial stability while at the same time not creating any undue costs or burdens for the rest of the economy. The Federal Reserve is committed to engaging in an ongoing assessment program to better understand how post-crisis reform is influencing financial stability as well as the potential economic costs of enhanced regulation.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Mulvaney:

1. I would like to follow up on our discussion concerning rules-based monetary policy and economic normalization. During the hearing, you testified that “the economy is in many ways close to normal,” that unemployment rates are at a point “most of my colleagues believe are consistent with full employment in the longer run,” and that you had good reason to believe inflation “will move up over time.” In fact, you testified, “in a sense, things are normal.” While you mentioned some concerns with the neutral level of the Federal Funds Rate and some other headwinds, you testified that the Taylor Rule wouldn’t be appropriate due to its underlying assumptions. You testified that the Federal Reserve follows systematic policy, but not in the form of a rule. However, at the end of our conversation, I was still left wondering what the world would have to look like before the Federal Reserve would be willing to employ a rules based system? I recognize that the Federal Reserve can still deviate from a rule to consider large sets of indicators about the economy’s performance, and that employing a rule isn’t mechanic, but I do expect to know what would be required before the Federal Reserve will consent to using rule based policy. It is essential that Congress and the public understand the methods employed by the Fed when making monetary policy decisions, and have some ability to predict future economic outcomes based on economic conditions (recognizing these change in extraordinary circumstances). A rule based policy provides us both the oversight and understanding that is essential during normal economic times.

Chair Yellen, I’d like to provide you another opportunity to answer this question, directly:

What must the world look like before the Federal Reserve will employ and follow a rules based system of monetary policy?

What must the employment rate be?

What must the inflation rate be?

What must the Federal Funds rate be?

What other factors must change from the state of the economy today before you will follow a monetary policy rule – any rule, not just the Taylor rule – of your choosing?

Please answer each question specifically, including with specific rates and levels.

My judgment, based on my reading of the research literature on policy rules and my experience as a policymaker, is that simple policy rules are a useful input into monetary policy decisions but that it is unlikely to ever be appropriate to follow the prescriptions of any simple policy rule. The economic research literature on monetary policy rules indicates that it is possible to identify optimal policy rules within the context of specific models of the structure and dynamics of an economy, but that the optimal rule is not the same in all models. The actual U.S. economy is much more complex than any of the extant models of the economy that economists have developed, so we cannot say that any particular rule is the right rule. The research literature also indicates that the optimal rule changes as the structure or dynamics of the economy changes. We know that the structure of the U.S. economy changes over time, but we cannot track those changes with any mathematical precision in real time. Moreover, even in the context of a given model of the U.S. economy, a rule that produces good outcomes on average does not do so in

response to all shocks to the economy. For those reasons, my Federal Reserve colleagues and I monitor the prescriptions of a range of policy rules and use them as inputs to our deliberations but do not necessarily implement the prescriptions of any rule.

To the extent that the factors restraining growth in U.S. economic activity (headwinds) are stronger now than during the historical period over which any particular policy rule has been estimated to work well, the implication is that the federal funds rate needs to be lower, while those headwinds persist, than prescribed by the rule. I would note that the economy has continued to make gradual progress toward maximum employment over the past couple of years, and inflation has been low (even after adjusting for the effects of falling oil prices on reported inflation), even as the Federal Open Market Committee (FOMC) kept the federal funds rate near zero rather than raising it to the appreciably higher levels suggested by the Taylor rule. Those economic outcomes indicate that monetary policy was not too easy even though it was more accommodative than the prescriptions of the Taylor rule. Nonetheless, I would not rule out the possibility that, as headwinds diminish over time, it could prove appropriate for the FOMC to gradually raise the federal funds rate to the level prescribed by the Taylor rule.

I agree that it is essential that Congress and the public understand the methods employed by the Fed when making monetary policy decisions, and that they have some ability to predict future monetary policy decisions based on economic conditions. That is what I mean by a “systematic policy.” A systematic policy is one that responds in a predictable and consistent manner to changes in economic conditions and the economic outlook. In practice, market expectations about future monetary policy, as indicated by market prices of federal funds futures contracts and some other financial instruments, do move in response to economic data that turns out to be stronger or weaker than expected; these movements offer evidence that investors understand how monetary policy will respond to an accumulation of data that indicates a need for a higher or lower path of the federal funds rate to foster maximum employment and price stability. That said, market participants, like policymakers, do not always agree about the implications of incoming data for the economic outlook, so they do not always agree about the implications of incoming data for future monetary policy. That would be true even if policymakers mechanically followed a particular rule: to predict future policy actions, investors would need to be able to predict the future values of the economic variables that enter the rule.

2. When making monetary policy decisions, what weight do you place on equity market movements in your decision making?

Of asset prices, stocks are one of the most closely watched and highly sensitive to economic conditions. With respect to monetary policy decisions, it should be the case that anticipated changes in policy are already discounted by market investors and are unlikely to affect equity prices when announced. However, any time a monetary policy decision is not aligned with market expectations, it would flow that there would be a greater impact on the markets. Have you found that to be the case as well? Do you find equity market prices to transmit the effects of monetary policy, or are monetary policy decisions made in response to equity market activities? Are these two factors countercyclical? Do you see a greater impact in some types of funds, like exchange traded funds, compared to others, and what weight to you give those fluctuations compared to the overall market when making monetary policy decisions?

Research clearly indicates that widely expected news, whether about monetary policy or fiscal policy or economic data releases, has smaller effects on asset prices than does unexpected news. The reason, of course, is that a widely anticipated policy decision or data release had its effect on asset prices when investors came to anticipate the decision or data. It is worth noting, however, that investors are unlikely to all share the same expectation about any policy decision, so it is rare for there to be absolutely no market response to the FOMC's decisions.

The effects of monetary policy actions on equity prices, like the effects of monetary policy actions on interest rates and exchange rates, are part of the transmission mechanism through which monetary policy affects the economy. For example, when the economy slows and unemployment rises, the FOMC typically reduces its target for the federal funds rate. That action, plus expectations of further such actions, tends to result in higher equity prices – and thus higher net worth – and lower interest rates for households and businesses (relative to what they would be otherwise). Higher net worth and lower interest rates both tend to foster additional consumer spending and business investment spending; that additional spending, in turn, gives firms an incentive to increase production and employment. While equity prices and other asset prices help transmit the effects of changes in monetary policy to the economy, the Federal Reserve does not target any particular level of equity prices or other asset prices. Neither does it target a particular level of interest rates other than the federal funds rate. Asset prices and interest rates vary in response to many factors other than monetary policy; the Federal Reserve does not seek to prevent such variations. However, because asset prices and interest rates affect household and business decisions about how much to spend and save, the FOMC necessarily takes asset prices and interest rates other than the federal funds rate into account when it considers how the economy is likely to evolve and what adjustments in monetary policy may be appropriate to foster maximum employment and price stability.

In a rough sense, broad equity price indexes tend to move with the business cycle, rising during economic expansions and declining during economic contractions. But there also appears to be a good deal of variation in equity prices – even in broad equity price indexes – that is not associated with the business cycle. Accordingly, the FOMC does not focus on day-to-day ups and downs in equity prices or other asset prices. I am not aware of evidence that there is a systematic difference in the covariation between various types of equity funds and economic conditions that would warrant using prices of exchange-traded funds rather than broad equity price indexes as an input into an assessment of financial conditions and their implications for the economic outlook.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Murphy:

1. While we've started to see signs of positive growth recently, do you agree that the lack of meaningful and sustained wage growth is an indication that our economy has not yet reached an acceptable definition of full employment? What type of progress on rising wages for working families do you see as a pre-requisite of any further rate increases?

We consider a number of indicators when evaluating whether we are on a path to meeting our dual mandate such as changes in the labor market, spending growth, and inflation. Hence, no single indicator provides a comprehensive view of whether we are on a path to meet our dual mandate. That said, wage growth does provide a signal of both the outlook for inflation and how much slack there is in the labor market, and so it is an indicator that we follow closely. It is our assessment that there remains at least a small amount of slack in the economy and that there is scope for wage growth to strengthen consistent with achieving our 2 percent inflation objective.

2. What efforts are you making to weigh the impact of further rate increases on the most vulnerable populations? How in your view will raising interest rates impact working families, including in traditionally underserved and minority communities?

I appreciate that the U.S. economic recovery, which has been substantial overall, has been uneven across communities, including some low- and moderate-income (LMI) communities, and I am troubled that some LMI communities have experienced long-term declines in economic opportunity. The Federal Reserve is limited in the extent to which its macroeconomic tools can specifically target those communities where further progress is needed. That said, our efforts to promote a strong economy, robust labor market, and stable financial institutions particularly benefit LMI communities, who tend to be harder hit when the economy falters.

Given that monetary policy is blunt tool, the best way that we can promote the economic health of LMI communities is to promote a sound economy. Monetary policy is currently accommodative, and in my view, assuming that labor markets continue to tighten and we are reasonably assured that inflation will return to our target, we will be most able to engender a sustainable expansion with a gradual removal of monetary accommodation. That said, as our decision not to raise rates in March shows, the path of monetary policy is dependent on the evolution of the economy.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Sherman:

1. What are the Federal Open Market Committee's (FOMC) plans in the event of another economic downturn? Specifically, has the FOMC determined whether it has legal authority to implement the following tools:

Negative interest rates;

Assistance to states, municipalities, and territories in fiscal distress (e.g., Chicago's Public School System, the city of Detroit, and Puerto Rico);

An emergency lending program using the Federal Reserve Act Section 14 (12 U.S.C. § 355) authority to make short-term public investments;

Under what contingencies would the FOMC consider utilizing the tools listed above?

Under what circumstances would the FOMC initiate a fourth round of quantitative easing?

Under what circumstances would the FOMC formulate a target (e.g., 1.0%) for the five-year Treasury rate?

The Federal Reserve's response to economic conditions, including any future financial crisis, very much depends on the circumstances. It is important to note that there have been many periods of economic downturn coupled with severe strains in financial markets that did not require the use of emergency lending programs, innovative monetary policy tools, or other extraordinary tools. Indeed, prior to the financial crisis in 2007-2009, the Federal Reserve had not utilized its emergency lending authorities since the Great Depression.

It simply is not possible to predict the circumstances in which it might be appropriate to implement particular policies, such as conducting additional quantitative easing or formulating targets for longer-term rates. As the FOMC has noted in recent statements, we expect that the economy will continue to strengthen and that inflation will return to our 2 percent goal over time. Consistent with that outlook, the FOMC has noted that it believes the economic outlook will evolve in way that will warrant a gradual increase in the target federal funds rate. Of course, if the economic outlook evolves in an unexpected way, the Federal Reserve will adjust the stance of policy appropriately to foster progress toward its long-run goals of maximum employment and stable prices.

The policy tools available to the Federal Reserve are provided by statute. The Federal Reserve's authority to purchase obligations issued by municipalities is limited to very specific types of obligations and may be done only in the open market. The Federal Reserve's authority to provide emergency credit to non-depository institutions is limited to programs with broad-based eligibility aimed at supporting the flow of credit to households and businesses; under these provisions, the Federal Reserve does not have the legal authority to lend to a specific borrower, including a municipality, that is failing or seeking to avoid resolution. More generally, providing assistance to municipalities inherently involves political judgments. As a result, as the Federal Reserve has noted previously, any program designed to provide assistance to municipal governments is a matter for the Congress and the Administration to address.

Negative interest rates are a tool employed by countries in Europe and elsewhere. By some accounts, these policies appear to have provided additional policy accommodation. As I have

noted previously, we certainly are trying to learn as much as we can from the experience of other countries. That said, while I would not completely rule out the use of negative interest rates in some future very adverse scenario, policymakers would need to consider a wide range of issues before employing this tool in the United States, including the potential for unintended consequences.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Tipton:

1. Chair Yellen, I appreciate the recent discussion from regulators acknowledging that regulation can be over burdensome. For instance, last month FDIC Vice Chair Thomas Hoenig expressed concern that the Fed's TLAC proposal, meant to strengthen supervision of systemically important financial institutions in the U.S., may not be tailored enough. As you are likely aware, the Committee has several pieces of legislation pending, including my bill H.R. 2896, that would call on regulators to be more tailored in their approach to prudential regulation. With regard to the TLAC rule, what criteria does the Fed use to determine its calibration for applying TLAC? There is a concern that it is not sensitive enough to the relative risk posed by individual institutions and I'd like to know what more can be done to ensure the level of regulation appropriately matches the risk posed by individual firms to the broader US Financial System.

The Federal Reserve Board (Board) designed its total loss-absorbing capacity (TLAC) proposal to be closely tailored to the risks to financial stability posed by each covered entity. This tailoring can be seen both in the selection of the firms to which the proposed TLAC and long-term debt requirements would apply and in the calibration of those requirements, which would vary from firm to firm based on the Board's assessment of each covered firm's systemic footprint.

First, the proposed TLAC and long-term debt requirements would apply only to the eight United States bank holding companies that meet the Board's criteria for "global systemically important banking organizations" (GSIBs), and to the U.S. intermediate holding companies of foreign GSIBs. As the preamble to the TLAC proposal discusses in greater detail, the criteria used to identify GSIBs are tailored to select those banking organizations that pose elevated risks to the financial system, and the criteria used to determine which foreign banking organizations must form U.S. intermediate holding companies are tailored to identify the foreign banking organizations with substantial operations in the U.S.

Second, the proposed external TLAC requirements include an "external TLAC buffer" whose size is scaled based on the systemic footprint of each U.S. GSIB. This scaling results from the fact that the external TLAC buffer for each U.S. GSIB includes the surcharge applicable to that firm under the first method of the Board's rule imposing risk-based capital surcharges on GSIBs (GSIB surcharge rule). See 80 FR, at 74933–74934. The materials issued along with the Board's GSIB surcharge rule discuss in detail how the GSIB surcharge applicable to each U.S. GSIB was calibrated on the basis of that firm's systemic footprint—that is, the damage that the firm's failure would be expected to do to the financial stability of the United States.

Third, the proposed external long-term debt requirements also incorporate each U.S. GSIB's GSIB surcharge, in that the risk-weighted assets component of each U.S. GSIB's external long-term debt requirement would be 6 percent of risk-weighted assets plus the surcharge applicable to that firm under the GSIB surcharge rule. Again, the GSIB surcharges are scaled based on the systemic footprint of each U.S. GSIB.

Finally, under the TLAC proposal, each covered firm's TLAC and long-term debt requirements would include a risk-weighted assets component, which sets the dollar amount of the requirement on the basis of the level of risk posed by the assets on each individual firm's balance sheet. This component tailors the requirements to each firm's probability of failure, and therefore to a key indicator of the risk that the firm poses to the financial stability of the United States. Thus, if two firms have balance sheets of the same absolute size but one of them is invested more heavily in relatively risky assets, then the firm with the riskier assets would be subject to higher requirements under the risk-weighted assets components of the proposed TLAC and long-term debt requirements.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Ranking Member Waters:

1. It's estimated that more than \$500 billion in checks are cashed annually, as opposed to deposited, and it's largely because of the time it takes for an average check to "clear." Would you agree that faster or same-day payments would reduce the need to cash checks?
2. An FDIC study showed that 60% of people who already have an account with either a bank or a credit union want instant access to their money, so much so that they are willing to pay exorbitant fees in check-cashing or small dollar loans. What specifically is the Federal Reserve doing to address this?
3. Are you aware that roughly 69% of first-time users of short-term loans said they used the loans to cover a recurring expense, such as paying rent or their electric bill? Do you agree that same day payments in the U.S. would help meet these daily cash-flow problems that so many families and young adults face?

Response to questions 1 through 3:

Several of the Federal Reserve's strategies in the payments system realm could help to make banking services more responsive to consumers including the unbanked and underbanked population. The Federal Reserve has undertaken a variety of actions to speed the clearing of payments and the availability of funds. These payments system improvements should help low-income Americans who face challenges managing their daily cash flow.

With regards to check clearing, the Federal Reserve has led the effort to make the nation's check clearing system faster and more efficient, beginning with the initial development of the Check Clearing for the 21st Century Act (Check 21), which took effect in 2004, and the provision of new services that leverage the Check 21 statutory authorities. Instead of physically moving paper checks from one bank to another, Check 21 has enabled banks to collect checks electronically. As a result of Check 21 and other check-system improvements, checks are almost always delivered to the paying bank within one business day of being deposited in the banking system. Also, given the Federal Reserve's restructuring of its check collection service, banks generally must make the proceeds of checks available for withdrawal no later than two business days following deposit, giving consumers faster guaranteed availability of funds than previously was the case.

The Federal Reserve has offered a voluntary same-day Automated Clearing House (ACH) service for several years. This experience has demonstrated that a same-day ACH service can only succeed if it is mandatory (that is, require all receiving banks to post same-day ACH transactions in a timely manner and make the funds available to the recipient on the day the transaction is received). Consistent with actions recently taken by the National Automated Clearing House Association or NACHA, the Federal Reserve Banks will introduce an enhanced, mandatory same-day ACH service later this year. This service will enable employers to pay their hourly workers via direct deposit, rather than by check, which is commonplace today. Employers will have more time to accurately determine the amount each hourly employee is due and create the ACH file in time to meet the processing deadlines for the current next-day ACH

service. The service will also enable banks to provide individuals an easy option to pay bills on a same-day basis. The Reserve Banks will encourage the banking industry to use same-day ACH for these and other potential use cases.

Additionally, the Federal Reserve has been leading an effort, together with a broad group of interested stakeholders, to evaluate designs for new safe, ubiquitous, faster payment capabilities in the United States. With such capabilities, payments could be made in seconds or minutes, with the recipient of the payment having prompt access to the funds. This system could help consumers manage their money in near real time. We believe that more than a quarter of current check payments could migrate to faster payments capabilities. More information on this effort can be found at <https://fedpaymentsimprovement.org/>. Among the criteria that will be used to evaluate the various potential faster payments system designs are the speed in which transactions would be cleared, how fast funds would be made available to the payee, and importantly, how effectively the solution addresses the needs of the unbanked or underbanked to affordably send or receive payments.

4. To what extent is financial inclusion of underserved communities a focus of the Federal Reserve's Faster Payments Taskforce?

The Federal Reserve recognizes that faster payment capabilities have the potential to draw more of the unbanked and underbanked population into the financial mainstream. As noted above, one of the faster payments effectiveness criteria developed by the Faster Payments Task Force is how effectively a faster payments solution addresses the needs of the unbanked or underbanked to affordably send or receive payments (for example, by supporting the ability to make payments to and/or from a regulated nonbank provider and/or explicitly promoting financial inclusion in the payments solution).

An important aspect of the Faster Payments Task Force's work is bringing together organizations with a wide range of views so that these views can be discussed and analyzed. To that end, the Federal Reserve has encouraged the Consumer Financial Protection Bureau (CFPB) and other consumer organizations to actively participate in the Faster Payments Task Force. Presently, representatives from Consumers Union and The Pew Charitable Trusts sit on the Faster Payments Task Force Steering Committee as well as a representative from the CFPB. Additionally, several other consumer advocacy organizations participate on the Faster Payments Task Force.